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PRODUCT CATALOGUE

Kixx

Product Catalogue



Kixx Helping the World Move Smoothly with Technology That Unlocks the Future.

Every day, we encounter countless movements that naturally create friction and wear. Lubricants help smooth these movements.

Kixx applies innovative technology to effectively reduce friction and wear, from the heart of automobiles to massive industrial machinery - enhancing efficiency and helping the world move more smoothly.

We Lubricate Mobility

By enhancing the power of automobiles and ensuring the smooth sailing of vessels at sea, we help all sectors mobilize more seamlessly.

We Lubricate Industry

From factory machines that run nonstop to heavy equipment on construction sites, we help industries run more smoothly.

Kixx, Korea's No. 1 lubricant,

works tirelessly to pave the way toward a smoother tomorrow.

Kixx *Lubricating the Future*

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HISTORY

GS Caltex will continue to do its utmost to become “ Value No.1 Energy & Chemical Partner ”

1967

Foundation of Honam Oil Refinery Ltd.

Honam Oil Refinery Ltd., Korea's first private oil refinery, was founded as a joint venture company between Korea's LG Group(formerly known as Lucky Geumseong) and the U.S.-based Caltex. It was later renamed LG-Caltex Refinery, before finally becoming GS Caltex in 2005.

- 1966. 12 Joint venture agreement with the U.S.-based Caltex company signed
- 1967. 05 Honam Oil Refinery Ltd. established



1969

Completion of Incheon Lubricant Factory

The Incheon Lubricant Factory is recognized in the global market for its excellent products, advanced technology, streamlined production efficiency and consistent quality improvement. It boasts a production capacity of 9,000 barrels of lubricant per day.

- 1969. 06 Completed construction of Yeosu Factory
- 1969. 11 Completed construction of Incheon Lubricant Factory

2005

Introduction of Kixx, a new automotive engine oil brand

Kixx was introduced as an engine oil brand for passenger cars, commercial vehicles, and motorcycles. Its fast and dynamic brand image and superior quality products established a powerful brand identity, bringing a fresh perspective to the engine oil industry in Korea.

- 2005. 09 Kixx launched as a new engine oil brand

2007

Completion of Yeosu Base Oil Plant

The Yeosu Base Oil Plant was completed, housing the 4th largest single-site refinery in the world. Production of high-quality, eco-conscious lubricant starts on site, utilizing cutting-edge hydro-cracking to satisfy the strict requirements of domestic and international lubricant manufacturers.

- 2007. 08 Yeosu Base Oil Plant starts production (16,000 barrels daily)



2010

Expansion of global operations

GS Caltex established GS Caltex India Private Ltd., February 2010, followed by the Moscow Branch and the Chinese Corporation in 2012, laying the foundation for Kixx's global expansion.

- 2007. 12 GS Caltex China Beijing Representative Office opened
- 2010. 02 GS Caltex India Private Ltd. established
- 2012. 02 GS Caltex Russia Representative Office opened
- 2012. 09 GS Caltex China Corporation established



2017

Repositioning as a leading global lubricant brand

Kixx introduced its new slogan, "All Ways with You," repositioning itself as a leading global lubricant brand that encompasses both automotive and industrial lubricant solutions.

- 2017. 03 New "All Ways with You" brand slogan is introduced



2020

Preparing for a sustainable future

Kixx researches and develops lubricant products for a sustainable future. We've launched plant-based engine oils and EV lubricants designed to reduce carbon emissions. We also continue to develop future-oriented products like immersion cooling fluids for efficient data center operations.

- 2020. 12 Launched Kixx HYBRID (Engine Oil for Hybrid Vehicles)
- 2021. 06 Launched Kixx EV (Lubricant for Electric Vehicles)
- 2022 Launched Kixx BIO1 (Plant-Derived Engine Oil), Kixx RD BIO (Biodegradable Hydraulic Fluid), and Kixx Chain BIO (Biodegradable Chain Saw Oil)
- 2023 Launched Kixx Immersion Fluid (Immersion Cooling Fluid)



2025

Kixx Brand Renewal with a New Design

Kixx is being recreated with a refreshed logo and package design, along with a revamped product lineup, to celebrate its 20th brand anniversary.

- 2025 Kixx Brand and Product System Renewal

Kixx BRAND STORY

TECHNOLOGY

Kixx, The Technology for Moving Machinery

We offer better lubricants to keep all machines in motion.

Kixx Has the Technology for Moving Machinery

Efficient movement is powered by technology you can't see. From automobiles to industrial equipment, Kixx has continuously demonstrated its value for moving machinery. Offering over 180 products crafted with advanced technology, including automotive and industrial lubricants and greases, Kixx provides the optimal solution to keep every mechanical system running smoothly.

Use of High-Quality Base Oil Produced In-House

Base oil is a critical component, comprising more than 80% of a lubricant's composition. The quality of the lubricant largely depends on the choice of base oil. Kixx products use base oil produced under strict quality controls at the GS Caltex Yeosu Complex, the fourth-largest single refinery in the world. By producing high-quality base oil in-house, Kixx ensures consistent, reliable product quality.

Relentless Research and Development by the R&D Center

The GS Caltex R&D Center, located in Daejeon, develops innovative products designed to meet customer needs through continuous research, including advances in lubrication technology for a more sustainable future.

This dedication is why customers can always count on the technological excellence of Kixx.

Kixx enhances efficiency across a diverse array of machinery through consistent and outstanding product quality. We are also pushing the boundaries to expand lubricant applications for future technologies. Our expertise in maximizing mechanical efficiency is why customers trust Kixx.

VISION

Kixx, Creating New Opportunities to Grow Into a Global Lubricant Brand

Rising from Korea's No. 1 to Global No. 1

We started producing lubricants at the Incheon plant in November 1969. Since then, we have spent 55 years improving manufacturing processes and product quality in an effort to produce the best lubricants. With a production volume of 9,000 barrels a day, our lubricants are now recognized in global markets for their top quality.

Leading technology to Respond to the Changing Environment

Amid rapid environmental changes including climate change, Kixx continues to fulfill its responsibility as Korea's leading lubricants brand to preserve the planet for the next generation.

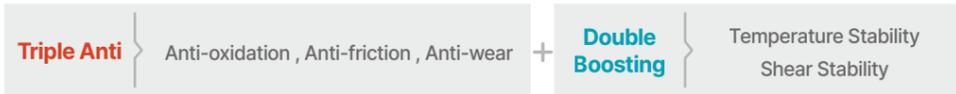
We are committed to creating a better future by ushering in the next generation of lubricating oils through research to reduce the carbon footprint of lubricants, production of immersion cooling fluid for data center cooling, and development of lubricants using plant-based base oil and refrigerant oil to maximize energy efficiency and performance.

Kixx is actively developing the technology to become the world's leading lubricants brand. Based on continued technological innovation, Kixx will strengthen its global leadership to move together towards a brighter tomorrow.

Kixx with Triple Double Technology

Kixx's Triple Double Technology combines Triple Anti-Technology and Double Boosting Technology, delivering optimized performance anytime, anywhere.

*** Applications :** Automotive engine oils & Transmission/Axle oils



Kixx with Dual Plus Technology

Kixx's Dual Plus Technology, applied exclusively to Kixx PAO products, provides a first-class driving experience in a harsh driving environment through Smooth & Stable Boosting Technology.



Kixx PRODUCT LINE-UP

Passenger Car | Premium



Passenger Car



Commercial Vehicle



Motorcycle



Transmission & Axle



Specialties



Hydraulic Fluid



Industrial Oil



Grease

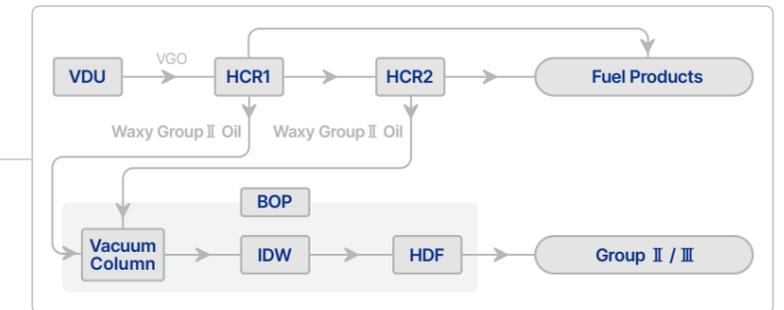


Marine





Flexible production of Group II and Group III base oils through a cutting edge two-stage **HCR production process.**



Term

- CDU (Crude Distillation Unit)
- AR (Atmospheric Residue)
- VDU (Vacuum Distillation Unit)
- VGO (Vacuum Gas Oil)
- VR (Vacuum Residue)
- HCR (Hydrocracker)
- BOP (Base Oil Plant)
- IDW (Iso Dewaxing)
- HDF (Hydro Finishing)

Kixx LUBO

Providing the optimal solutions to engineer **premium quality lubricants.**

 The launch of a new era in high performance base oil.

GS Caltex invested 1.5 trillion won (\$1.6 billion) in its Heavy Oil Upgrade (No.2 HOU) facility and Base Oil Plant (BOP) located in Yeosu, South Korea in order to produce its ultralight sulfur kerosene, light oil, and lube base oil. GS Caltex began its base oil production with 16,000 BPSD capacity in November 2007 and expanded the capacity to 26,000 BPSD in 2011. GS Caltex aims to be the influential and dominant supplier of high quality base oil through further expansions and improvements.

 A high performance base oil which meets even the most stringent requirements.

The need for lubricant makers to meet more stringent regulatory standards and challenging specifications is growing. The ongoing shift to higher quality automotive lubricants is driven mainly by the automobile industry's increasingly strict requirements such as severe vehicle emission standards. Industrial demand is also moving towards hydraulic fluids with a High Viscosity Index (HVI) and high oxidation stability turbine oils. Since more than 80% of the content of lubricants consists of base oils, higher quality base oil is essential in producing higher quality lubricants. GS Caltex Group II/III base oil can give the optimal solution for top quality lubricants which conventional base oils are not able to provide.

HCR Eco-conscious base oil produced with the latest HCR technology.

Through the ingenuity of its facility, GS Caltex has the flexibility to control the desired amount of production of both Group II and Group III base oil. GS Caltex can also produce high quality heavy grade base oil to replace white oil and bright stock. GS Caltex Group II/III base oil has excellent low temperature properties and exceptionally bright white clear transparent qualities. The Group II/III base oil produced by GS Caltex is sustainable, has a low volatility, and helps reduce consumption and improve fuel economy. Furthermore GS Caltex offers high thermal and oxidation stability to support drain interval extension. All these advantages are the result of the latest cutting edge hydrocracking technology. These benefits will help GS Caltex adapt more efficiently to changing market conditions and generate greater customer satisfaction.

 Realizing strategic partnerships by matching various customer needs.

Kixx LUBO, the new name in base oil, is a combination of the GS Caltex family brand Kixx and lube base oil. The Kixx name originates from the etymology of "kick" to describe speed, strength, and dynamism. With the launching of Kixx LUBO, GS Caltex will focus on communicating with customers and establishing strategic partnerships.

01

Passenger Car

Premium	Kixx PAO 100
	Kixx PAO
	Kixx BIO
	Kixx Hybrid
GX9	Kixx GX9 Euro
	Kixx GX9 Euro FE
	Kixx GX9 Dexos1
	Kixx GX9 Diesel
GX7	Kixx GX7
	Kixx GX7 DL-1
	Kixx GX7 Diesel
GX5	Kixx GX5
	Kixx GX5 Diesel





Kixx PAO 100

Premium engine oil made from 100% PAO with cutting edge technology

0W-30
API SP, ACEA C2/C3

0W-40
API SP, ACEA C3

Description

Kixx PAO 100 is a premium performance, multi-grade motor oil formulated from selected PAO (Poly Alpha Olefin) and race-proven additive technology. It can be used in passenger cars and light truck gasoline engines and passenger car diesel engines under all operating conditions. It is optimized to provide complete engine protection plus ultimate performance.

Features & Benefits

Maximizes engine life

The wider temperature range capability of the synthetic base fluid ensures correct oil viscosity which reduces friction at startup and provides maximum lubrication during high temperature operation. The effective anti-wear additive system minimizes wear in even the most sophisticated valve train mechanisms, including those with variable valve timing.

Maximizes power and performance

Metallic detergent and ashless dispersant additive system ensures maximum power and performance by providing superior control of the ring belt and the piston skirt deposits, even under the most severe operating conditions. Special friction modifiers assist in reducing friction resulting in maximum fuel economy.

Low oil consumption

Synthetic, highly shear-stable formulation provides superior control of oil flow through the ring belt area by maintaining oil viscosity and reduces oil evaporation at the elevated ring zone temperatures experienced under all operating conditions.

Longer equipment life

Special anti-wear additive package reduces wear by protecting surfaces when load causes breakdown of the lubricant film.

Lower impact emissions

Highly advanced additive technology delivers reduction in harmful exhaust emissions. This advanced technology performance enhanced by low phosphorus and sulfur formulation (low SAPS), reduces ash formation and delivers a significant increase in DPF/GPF service life.

Application

- Gasoline and LPG engine vehicles with GDI/T-GDI/DOHC/EFI/ VVT, etc.
- Diesel engine vehicles equipped with DPF/CPF/EGR, etc.
- High-end imported cars such as Mercedes-Benz, BMW, etc.
- Recommended engine oils for vehicles with the following "Performance Specifications"

Performance Standard

- 0W-30**
API SP, ACEA C2/C3, MB 229.31/51/52, BMW LL-04 Recommended
- 0W-40**
API SP, ACEA C3, MB 229.31/51/52, BMW LL-04 Recommended

Typical Properties

SAE Viscosity Grade	Density	Kinematic Viscosity		Viscosity Index	Flash Point	Pour Point	HTHS	CCS	Base Oil
	kg/L @15°C	mm ² /s @40°C	mm ² /s @100°C		°C	°C	mPa·s @150°C	cP	
0W-30	0.847	68.8	12.1	176	234	-57	3.6	5,100 @-35°C	100% PAO Synthetic
0W-40	0.848	87.6	15.2	183	214	-58	3.6	5,400 @-35°C	100% PAO Synthetic

* The above data may differ slightly from the actual value of the product within the range where there is no abnormality in product performance.



Kixx PAO

Premium gasoline engine oil providing a first-class driving experience

ACEA A3/B4, API SN

Description

Kixx PAO is a premium performance, multi-grade motor oil formulated from PAO and VHVI synthetic base fluids and race-proven additive technology for use in passenger car gasoline engines.

Features & Benefits

- High performance fully synthetic engine oil made from PAO and VHVI base oil
- Meets the latest ACEA specifications A3/B4 and exceeds many global car OEM requirements
- Provides longer oil drain interval and extends oil's life by minimizing viscosity change
- Improves engine durability by reducing sludge formation while maintaining piston cleanliness

Application

- Gasoline in passenger cars
- Passenger cars where the manufacturers recommend ACEA A3/B4 spec oils
- Portable power equipment where the manufacturer recommends conventional passenger car motor oils

Performance Standard

- ACEA A3/B4, API SN
- MB 229.3/5, BMW LL-01, VW 502.00/505.00, RN 0710 Recommended

Typical Properties

SAE Viscosity Grade	Density	Kinematic Viscosity		Viscosity Index	Flash Point	Pour Point	HTHS	CCS	Base Oil
	kg/L @15°C	mm ² /s @40°C	mm ² /s @100°C		°C	°C	mPa·s @150°C	cP	
5W-30	0.855	70.9	12.1	169	218	-44	3.6	4,700 @-30°C	PAO Blended Synthetic
5W-40	0.856	90.7	15.2	177	230	-44	4.1	5,100 @-30°C	PAO Blended Synthetic

* The above data may differ slightly from the actual value of the product within the range where there is no abnormality in product performance.



Description

Kixx PAO is a fully synthetic engine oil formulated from PAO-added VHVI base oil using high performance additive technology. It meets the requirements of current advanced standards of API SP and ACEA C category spec. It is also highly recommended for diesel passenger cars with DPF. It is engineered to provide outstanding engine protection, ensuring longer engine life.

Features & Benefits

- High performance fully synthetic engine oil made from PAO and VHVI base oil
- Meets the latest ACEA C category specification and exceeds global car OEM requirements
- Prevents engine's camshaft wear
- Prolongs engine's life with exceptional anti-oxidation stability

Application

- Diesel engines equipped with DPF in passenger cars
- Passenger cars where the manufacturers recommend ACEA C2 or C3 spec oils

Performance Standard

- **0W-30 / 5W-30**
ACEA C2/C3, API SP, MB 229.31/51/52, BMW LL-04 Recommended
- **5W-40**
ACEA C3, API SP, MB 229.31/51/52, BMW LL-04 Recommended

Kixx PAO

Premium engine oil providing a first-class driving experience

0W-30 / 5W-30

ACEA C2/C3, API SP

5W-40

ACEA C3, API SP

Typical Properties

SAE Viscosity Grade	Density	Kinematic Viscosity		Viscosity Index	Flash Point	Pour Point	HTHS	CCS	Base Oil
	kg/L @15°C	mm ² /s @40°C	mm ² /s @100°C		°C	°C	mPa·s @150°C	cP	
0W-30	0.848	69.5	12.3	176	224	-51	3.6	5,700 @-35°C	PAO Blended Synthetic
5W-30	0.853	71.8	12.0	165	228	-44	3.6	5,500 @-30°C	PAO Blended Synthetic
5W-40	0.853	92.2	15.2	174	222	-43	4.3	5,400 @-30°C	PAO Blended Synthetic

* The above data may differ slightly from the actual value of the product within the range where there is no abnormality in product performance.



Description

Kixx BIO is a high performance, fully synthetic engine oil made from plant-based oil and cutting-edge additives. USDA (United States Department of Agriculture) Certified Biobased Product, Kixx BIO is an optimal choice for consumers who are looking for a high-performance engine oil that will take their engine to the next level.

Features & Benefits

Bio-based Lubricants

Plant-based Base Oil, Base oil made from renewable feedstocks including soy, coconut, rapeseed and palm. A USDA (United States Department of Agriculture) Certified Biobased Product, approved to contain 86% bio-based content for 0W-20 and 26% for 5W-30.

Improved Fuel Economy

Uses the lubricating power of plants to deliver improved fuel economy that exceeds industry standards, with excellent friction reduction.

Enhanced Wear Prevention

Improves durability by protecting engine parts from collision owing to improper operation timing caused by timing chain tension loss and wear.

Advanced Engine Protection

Prevents engine damage and prolongs engine life with outstanding sludge control, LSPI protection and overall engine cleanliness.

Application

- All gasoline fueled vehicles
- High performance cars equipped with T-GDI, GDI, GPF, DOHC, EFI and VVT

Performance Standard

- API SQ-RC, ILSAC GF-7A recommended

Kixx BIO

ustainable, fully synthetic engine oil made from plant-based oil

API SQ-RC, ILSAC GF-7A

Typical Properties

SAE Viscosity Grade	Density	Kinematic Viscosity		Viscosity Index	Flash Point	Pour Point	HTHS	CCS	Base Oil
	kg/L @15°C	mm ² /s @40°C	mm ² /s @100°C		°C	°C	mPa·s @150°C	cP	
0W-20	0.835	46.4	8.8	173	240	-45	2.7	3,400 @-35°C	100% Bio-based Synthetic
5W-30	0.850	65.4	10.9	159	240	-42	3.0	5,000 @-30°C	Bio-based Synthetic

* The above data may differ slightly from the actual value of the product within the range where there is no abnormality in product performance.



Description

Kixx Hybrid is a premium performance, fully synthetic engine oil which is specially designed for Hybrid Electric Vehicles (HEV). Formulated from VHVI base oils and high-performance additive systems, Kixx Hybrid provides complete engine oil performance, especially enhanced engine durability and fuel efficiency improvement. It also minimizes CO2 emissions through fuel consumption reduction.

Features & Benefits

Excellent Engine Protection

High performance anti-wear additive and leading-edge viscosity modifier deliver maximum wear protection and excellent shear stability. Superior low temperature properties provide excellent lubrication and engine protection for HEV that needs to go through frequent engine start up during mode transition.

Maximized Fuel Efficiency

Premium synthetic base oils and advanced friction modifiers provide reduction of friction, ensuring improved engine performance and maximized fuel efficiency. Specially tailored viscosity characteristics improve oil flow and reduce friction resistance, consequently providing higher engine efficiency.

Extended Oil Drainage Interval

Excellent oxidation stability and shear stability extend the engine oil drain interval.

Application

- Hybrid Electric Vehicles (HEV) equipped with gasoline engines
 - For Kixx Hybrid 0W-16, use only for vehicles that the manufacturer recommends 0W-16 viscosity grade

Performance Standard

- 0W-16**
API SQ-RC, ILSAC GF-7B Recommended
- 0W-20**
API SQ-RC, ILSAC GF-7A, GM dexos1 Gen 3 Recommended

Kixx Hybrid

Premium engine oil, the perfect fit for Hybrid Electric Vehicles

0W-16

API SQ-RC, ILSAC GF-7B

0W-20

API SQ-RC, ILSAC GF-7A

Typical Properties

SAE Viscosity Grade	Density kg/L @15°C	Kinematic Viscosity		Viscosity Index	Flash Point °C	Pour Point °C	HTHS mPa·s @150°C	CCS cP	Base Oil
		mm ² /s @40°C	mm ² /s @100°C						
0W-16	0.849	31.8	7.0	192	218	-45	2.4	5,100 @-35°C	Fully Synthetic
0W-20	0.850	33.3	7.8	219	228	-45	2.6	5,000 @-35°C	Fully Synthetic

* The above data may differ slightly from the actual value of the product within the range where there is no abnormality in product performance.



Description

Kixx GX9 Euro is a premium performance, multi-grade motor oil formulated with selected synthetic base oil and race-proven additive technology. It can be used in normal SAPS passenger cars (gasoline engines and diesel engines without DPF) under all operating conditions. This product particularly meets the latest ACEA A3/B4 specification. It is optimized to provide long drain intervals as well as good performance.

Features & Benefits

Extended Oil Drainage Interval

Excellent oxidation stability provides very low viscosity increase helping customers to save costs related with the frequent oil change.

Maximum engine life

The excellent detergent system delivers excellent piston cleanliness and outstanding sludge control. It will provide the needed engine protection and extend engine service life.

Superior Low Temperature Performance

Superior low temperature properties with proven metal-organic anti-wear additives provide easy start-up of engine at extremely low temperature and excellent wear control in even the most sophisticated valve train mechanisms, including those with variable valve timing.

Application

- Naturally aspirated and turbocharged gasoline engines in passenger cars.
- Light truck gasoline engines.
- Gas-fueled (natural gas and LPG) spark ignition engines where conventional passenger car motor oils are recommended
- Four-stroke gasoline engines in motorcycles and portable power equipment where the manufacturer recommends conventional passenger car motor oils.

Performance Standard

- ACEA A3/B4, API SN
- MB 229.3, BMW LL-01, VW 502.00/505.00, RN 0710 Recommended

Kixx GX9 Euro

High grade gasoline engine oil, the perfect fit for ACEA A3/B4 specification

ACEA A3/B4, API SN

Typical Properties

SAE Viscosity Grade	Density kg/L @15°C	Kinematic Viscosity		Viscosity Index	Flash Point °C	Pour Point °C	HTHS mPa·s @150°C	CCS cP	Base Oil
		mm ² /s @40°C	mm ² /s @100°C						
5W-30	0.855	70.1	12.1	170	234	-43	3.6	4,800 @-30°C	Fully Synthetic
5W-40	0.854	87.2	14.4	172	224	-42	4.0	5,800 @-30°C	Fully Synthetic
10W-40	0.862	95.0	14.4	156	229	-40	4.0	5,500 @-25°C	Fully Synthetic

* The above data may differ slightly from the actual value of the product within the range where there is no abnormality in product performance.



Kixx GX9 Euro FE

High grade gasoline engine oil, the perfect fit for ACEA A5/B5 specification

ACEA A5/B5, API SN

Description

Kixx GX9 Euro FE is a premium performance, multi-grade motor oil formulated with selected synthetic base oil and high-performance additive technology. It can be used in normal SAPS passenger cars (gasoline engines and diesel engines without DPF) under all operating conditions. This product particularly meets the latest ACEA A5/B5 specification and is especially designed to provide Fuel Economy, long drain intervals as well as good performance.

Features & Benefits

Fuel Efficiency

Specially tailored viscosity characteristics and effective friction modifier minimize internal engine friction loss which reduces fuel consumption.

Extended Oil Drainage Interval

Excellent oxidation stability provides very low viscosity increase helping customers to save costs related to the frequent oil change.

Maximum engine life

The excellent detergent system delivers excellent piston cleanliness and outstanding sludge control. It will provide the needed engine protection and extend engine service life.

Superior Low Temperature Performance

Superior low temperature properties with proven metal-organic anti-wear additives provide easy start-up of engines at extremely low temperature and excellent wear control in even the most sophisticated valve train mechanisms, including those with variable valve timing.

Application

- Gasoline fueled passenger cars where the manufacturers recommend ACEA A5/B5 spec oils
- Gas-fueled (natural gas and LPG) spark ignition engines where manufacturer recommends conventional passenger car motor oils
- Four-stroke gasoline engines in motorcycles and portable power equipment where the manufacturer recommends conventional passenger car motor oils (except for motorcycles with wet clutch gearbox)

Performance Standard

- ACEA A5/B5, API SN
- Ford WSS-M2C913-D Recommended

Typical Properties

SAE Viscosity Grade	Density kg/L @15°C	Kinematic Viscosity		Viscosity Index	Flash Point °C	Pour Point °C	HTHS mPa·s @150°C	CCS cP	Base Oil
		mm ² /s @40°C	mm ² /s @100°C						
5W-30	0.857	58.5	10.1	161	240	-43	3.0	5,900 @-30°C	Fully Synthetic

* The above data may differ slightly from the actual value of the product within the range where there is no abnormality in product performance.



Kixx GX9 Dexos1

High grade gasoline engine oil, the perfect fit for GM's passenger cars

API SQ-RC, ILSAC GF-7A, GM dexos1 Gen3

Description

Kixx GX9 Dexos1 is formulated from VHVI base oils, high performance additive systems and leading-edge viscosity index improver. It meets the requirements of advanced top-tier engine oil grades, API SQ and GM dexos1 Gen3. It is optimized to provide complete engine oil performance, especially for fuel efficiency, through friction reduction and enhanced durability. In addition, it also minimizes abrupt damage of key engine components (such as piston rings, connecting rods and so on) by preventing LSPI (Low Speed Pre-Ignition) phenomena in T-GDI engines.

Features & Benefits

Improved Engine Power and Maintainability

A reduction in the piston blow-by gas coupled with the oil's anti sludge characteristics helps to maintain engine power and cleanliness, which in turn extends the engine's service life.

Extended Oil Drainage Interval

Excellent oxidation resistance and low volatility will extend oil drainage interval.

Stronger Wear Protection

Outstanding protection of valve train by maintaining lubricating films under high temperature will extend engine life.

LSPI Prevention

Advanced additives technology efficiently suppresses LSPI phenomena that occasionally occur in combustion chambers of T-GDI engines.

Application

- All gasoline fueled vehicles
- High performance cars equipped with T-GDI, GDI, GPF, DOHC, EFI and VVT
- Four-stroke gasoline engines in motorcycles.
- Sports vehicles

Performance Standard

- API SQ-RC, ILSAC GF-7A, GM dexos1 Gen3 Recommended

Typical Properties

SAE Viscosity Grade	Density kg/L @15°C	Kinematic Viscosity		Viscosity Index	Flash Point °C	Pour Point °C	HTHS mPa·s @150°C	CCS cP	Base Oil
		mm ² /s @40°C	mm ² /s @100°C						
0W-20	0.845	43.8	8.2	165	234	-45	2.6	5,200 @-35°C	Fully Synthetic
5W-30	0.852	67.9	11.2	159	242	-44	3.2	6,200 @-30°C	Fully Synthetic

* The above data may differ slightly from the actual value of the product within the range where there is no abnormality in product performance.



Description

Kixx GX9 Diesel is formulated with the latest VHVI synthetic base oil combined with additive technology that produces minimum sulfated ash, phosphorous and sulfur contents to meet the requirement of low SAPS oil. Kixx GX9 Diesel is suitable for passenger car mounted with gasoline or diesel engines, as well as SUV and RV. Kixx GX9 Diesel maintains engine durability while helps in extending the life of DPF and helps in increasing DPF performance by using additive of minimum sulfated ash contents. Kixx GX9 Diesel also helps extending the life of emission after-treatment devices such as SCR by introducing low phosphorous and sulfur content additive technology.

Application

- SUV and RV equipped with DPF, SCR and other emission aftertreatment system where an ACEA C3 performance engine oil is required.
- Light duty diesel engines and gasoline direct injection engines.
- Passenger cars where the manufacturers recommend API SN spec oils.
- Vehicles that require MB, BMW, VW specification performance.

Performance Standard

- **5W-30**
ACEA C3, API SN, MB 229.31/51/52, BMW LL-04, VW 505.00/505.01, GM dexos2 Recommended
- **5W-40**
ACEA C3, API SN, MB 229.31/51, BMW LL-04, VW 505.00/505.01, GM dexos2 Recommended

Kixx GX9 Diesel

High grade diesel engine oil providing excellent protection

5W-30

ACEA C3, API SN

5W-40

ACEA C3, API SN

Typical Properties

SAE Viscosity Grade	Density kg/L @15°C	Kinematic Viscosity		Viscosity Index	Flash Point °C	Pour Point °C	HTHS mPa·s @150°C	CCS cP	Base Oil
		mm ² /s @40°C	mm ² /s @100°C						
5W-30	0.853	73.2	12.2	165	234	-42	3.6	5,800 @-30°C	Fully Synthetic
5W-40	0.850	86.7	14.7	178	232	-45	3.7	4,400 @-30°C	Fully Synthetic

* The above data may differ slightly from the actual value of the product within the range where there is no abnormality in product performance.

NEW



Kixx GX7

High grade gasoline engine oil providing excellent protection

0W-16

API SQ-RC, ILSAC GF-7B

0W-20 / 0W-30 / 5W-20 / 5W-30 / 10W-30

API SQ-RC, ILSAC GF-7A

5W-40 / 5W-50 / 10W-40 / 20W-50

API SQ

Description

Kixx GX7 is formulated from VHVI base oils, high performance additive systems and leading-edge viscosity index improver, which meet the requirement of advanced top-tier engine oil grade of API SQ. It is optimized to provide complete engine oil performance, especially enhanced durability and fuel efficiency improvement, through wear protection and friction reduction. In addition, it also includes timing chain wear protection, LSPI prevention performances and exhaust after-treatment system protection.

Features & Benefits

Enhanced Fuel Economy

The wide temperature range capability of VHVI and HVI base oils ensures correct oil viscosity which reduces friction at start-up and provides maximum lubrication under high temperature operating condition.

Wear Resistance under Wide Temperature Condition

Advanced non-conventional base oil formula coupled with high performance additive systems and leading-edge viscosity index improver delivers excellent shear stability and maximum wear protection under high speed, and high temperature driving conditions as well as a rapid, highly effective oil film generation. It also minimizes wear of key engine components during engine start under very low temperature

Superior Low Temperature Performance

Superior low temperature properties with proven metal-organic anti-wear additives provide easy start-up of engines at extremely low temperature and excellent wear control in even the most sophisticated valve train mechanisms, including those with variable valve timing.

Extended Oil Drainage Interval

Excellent oxidation resistance and low volatility will extend oil drainage interval.

LSPI Prevention

Advanced additives technology efficiently suppresses LSPI phenomena that occasionally occur in combustion chambers of T-GDI engines.

Timing Chain Wear Protection

High-quality additives effectively protect timing chain against wear that may cause engine power loss and more fuel consumption.

Emission Control System Protection

Protect GPF (Gasoline Particulate Filter) from clogging with specially designed low ash additive system.

Application

- All gasoline fueled vehicles
- High performance cars equipped with T-GDI, GDI, GPF, DOHC, EFI and VVT
- Four-stroke gasoline engines in motorcycles (except for motorcycles with wet clutch gearbox)
- Sports vehicles

Performance Standard

- **0W-16** : API SQ-RC, ILSAC GF-7B
- **0W-20 / 0W-30 / 5W-20 / 5W-30 / 10W-30** : API SQ-RC, ILSAC GF-7A
- **5W-40 / 5W-50 / 10W-40 / 20W-50** : API SQ

Typical Properties

SAE Viscosity Grade	Density kg/L @15°C	Kinematic Viscosity		Viscosity Index	Flash Point °C	Pour Point °C	HTHS mPa·s @150°C	CCS cP	Base Oil
		mm ² /s @40°C	mm ² /s @100°C						
0W-16	0.844	37.7	7.2	160	228	-50	2.4	5,200 @-35°C	Fully Synthetic
0W-20	0.845	43.3	8.1	164	220	-50	2.7	5,700 @-35°C	Fully Synthetic
0W-30	0.843	57.5	10.4	172	228	-50	3.1	5,800 @-35°C	PAO Blended Synthetic
5W-20	0.853	53.3	9.0	148	238	-43	2.8	5,900 @-30°C	Fully Synthetic
5W-30	0.851	62.5	10.5	158	238	-39	3.2	5,600 @-30°C	Fully Synthetic
5W-40	0.851	88.7	14.3	168	226	-43	4.0	6,200 @-30°C	Fully Synthetic
5W-50	0.849	126.6	19.5	175	228	-43	4.9	6,200 @-30°C	Fully Synthetic
10W-30	0.862	72.0	11.2	148	242	-41	3.2	4,100 @-25°C	Semi-Synthetic
10W-40	0.862	100.4	15.0	156	240	-42	4.1	4,900 @-25°C	Semi-Synthetic
20W-50	0.875	169.9	19.0	127	268	-25	5.0	7,600 @-15°C	Semi-Synthetic

* The above data may differ slightly from the actual value of the product within the range where there is no abnormality in product performance.



Description

Kixx GX7 is formulated from VHVI base oils, high performance additive systems and leading-edge viscosity index improver, which meet the requirement of advanced engine oil grade of API SP. It is optimized to provide complete engine oil performance, especially enhanced durability and fuel efficiency improvement, through wear protection and friction reduction. In addition, it also includes timing chain wear protection and LSPI prevention performances, which are essential for today's modern vehicles.

Features & Benefits

Improved Engine Power and Maintainability

A reduction in the piston blow-by gas coupled with the oil's anti-sludge characteristics helps to maintain engine power and cleanliness, which in turn extends the engine's service life.

Fuel Efficiency

Specially tailored viscosity characteristics and effective friction modifier minimize internal engine friction loss which reduces fuel consumption.

Saves on maintenance costs

High thermal stability and excellent oxidation resistance provides outstanding protection against in-service oil degradation that contributes to filter blocking and sludge formation in the oil galleries, crankcase and engine head.

LSPI Prevention

Advanced additives technology efficiently suppresses LSPI phenomena that occasionally occur in combustion chambers of T-GDI engines.

Timing Chain Wear Protection

High-quality additives effectively protect timing chain against wear that may cause engine power loss and more fuel consumption.

Application

- All gasoline fueled vehicles
- High performance cars equipped with T-GDI, GDI, DOHC, EFI and VVT
- Four-stroke gasoline engines in motorcycles (except for motorcycles with wet clutch gearbox)
- Sports vehicles

Performance Standard

- **0W-16** : API SP-RC, ILSAC GF-6B
- **0W-20 / 0W-30 / 5W-20 / 5W-30 / 10W-30** : API SP-RC, ILSAC GF-6A
- **5W-40 / 5W-50 / 10W-40 / 20W-50** : API SP

Kixx GX7

High grade gasoline engine oil providing excellent protection

0W-16

API SP-RC, ILSAC GF-6B

0W-20 / 0W-30 / 5W-20 / 5W-30 / 10W-30

API SP-RC, ILSAC GF-6A

5W-40 / 5W-50 / 10W-40 / 20W-50

API SP

Typical Properties

SAE Viscosity Grade	Density	Kinematic Viscosity		Viscosity Index	Flash Point	Pour Point	HTHS	CCS	Base Oil
	kg/L @15°C	mm ² /s @40°C	mm ² /s @100°C		°C	°C	mPa·s @150°C	cP	
0W-16	0.845	37.4	7.2	158	230	-43	2.4	5,400 @-35°C	Fully Synthetic
0W-20	0.845	45.0	8.4	167	226	-43	2.6	5,600 @-35°C	Fully Synthetic
0W-30	0.843	54.2	10.0	173	232	-44	3.0	5,800 @-35°C	PAO Blended Synthetic
5W-20	0.853	48.1	8.2	144	240	-39	2.7	5,900 @-30°C	Fully Synthetic
5W-30	0.852	62.3	10.4	157	238	-39	3.1	5,700 @-30°C	Fully Synthetic
5W-40	0.850	84.0	13.8	169	228	-40	3.8	6,000 @-30°C	Fully Synthetic
5W-50	0.851	118.4	18.6	176	226	-39	4.5	6,200 @-30°C	Fully Synthetic
10W-30	0.860	68.7	10.9	148	242	-40	3.2	4,300 @-25°C	Semi-Synthetic
10W-40	0.860	98.9	14.9	158	240	-39	4.0	5,300 @-25°C	Semi-Synthetic
20W-50	0.875	156.0	17.9	127	274	-26	4.7	6,700 @-15°C	Semi-Synthetic

* The above data may differ slightly from the actual value of the product within the range where there is no abnormality in product performance.



Description

Kixx GX7 is formulated from VHVI base oils, high performance additive systems and leading-edge viscosity index improver, which meet the requirement of engine oil grade of API SN PLUS. It is optimized to provide complete engine oil performance, especially fuel efficiency, through friction reduction and enhanced durability. In addition, it also minimizes abrupt damage of key engine components (such as piston rings, connecting rods and so on) by prevention of LSPI (Low Speed Pre-Ignition) phenomena in T-GDI engines.

Features & Benefits

Fuel Efficiency

Specially tailored viscosity characteristics and effective friction modifier minimize internal engine friction loss which reduces fuel consumption.

Saves on maintenance costs

High thermal stability and excellent oxidation resistance provides outstanding protection against in-service oil degradation that contributes to filter blocking and sludge formation in the oil galleries, crankcase and rocker arm cover.

LSPI Prevention

Advanced additives technology efficiently suppresses LSPI phenomena that occasionally occur in combustion chambers of T-GDI engines.

Application

- Naturally aspirated and T-GDI, GDI engines in passenger cars including SUV
- Gas-fueled (natural gas and LPG) spark ignition engines where conventional passenger car motor oils are recommended
- Four-stroke gasoline engines in motorcycles and portable power equipment where the manufacturer recommends conventional passenger car motor oils

Performance Standard

- **0W-20 / 5W-20 / 5W-30 / 10W-30** : API SN PLUS-RC, ILSAC GF-5
- **5W-40 / 10W-40 / 20W-50** : API SN PLUS

Kixx GX7

High grade gasoline engine oil providing excellent protection

0W-20 / 5W-20 / 5W-30 / 10W-30

API SN PLUS-RC, ILSAC GF-5

5W-40 / 10W-40 / 20W-50

API SN PLUS

Typical Properties

SAE Viscosity Grade	Density	Kinematic Viscosity		Viscosity Index	Flash Point	Pour Point	HTHS	CCS	Base Oil
	kg/L @15°C	mm ² /s @40°C	mm ² /s @100°C		°C	°C	mPa·s @150°C	cP	
0W-20	0.846	46.7	8.7	167	226	-44	2.7	5,400 @-35°C	Fully Synthetic
5W-20	0.853	50.0	8.6	150	240	-41	2.6	5,000 @-30°C	Fully Synthetic
5W-30	0.853	64.8	10.8	158	238	-41	3.2	5,700 @-30°C	Fully Synthetic
5W-40	0.851	91.7	14.9	171	228	-41	4.2	5,300 @-30°C	Fully Synthetic
10W-30	0.862	72.0	11.2	148	242	-41	3.2	4,100 @-25°C	Semi-Synthetic
10W-40	0.862	100.4	15.0	156	240	-42	4.1	4,900 @-25°C	Semi-Synthetic
20W-50	0.875	164.3	18.7	129	274	-30	4.7	6,400 @-15°C	Semi-Synthetic

* The above data may differ slightly from the actual value of the product within the range where there is no abnormality in product performance.



Description

Kixx DL-1 is a synthetic ultra-low SAPs engine oil engineered to comply with the latest JASO (Japanese Automotive Standards Organization) DL-1 standard, provides unsurpassed lubrication with a wide range of temperature for today's engines operating in severe conditions.

Features & Benefits

- Maximize engine life based on outstanding wear protection
- Extends the service life of emission after treatment systems by prevention of clogging in DPF (Diesel Particulate Filter)
- Excellent low temperature fluidity for quick and easy start-ups in cold weather

Application

- Diesel engines equipped with DPF in passenger cars and light-duty trucks
- Passenger cars and light-duty trucks where the manufacturers recommend JASO DL-1 spec oils

Performance Standard

- JASO DL-1 Recommended

Kixx GX7 DL-1

The perfect fit for Japanese light-duty diesel engine

JASO DL-1

Typical Properties

SAE Viscosity Grade	Density	Kinematic Viscosity		Viscosity Index	Flash Point	Pour Point	HTHS	CCS	Base Oil
	kg/L @15°C	mm ² /s @40°C	mm ² /s @100°C		°C	°C	mPa·s @150°C	cP	
0W-30	0.843	55.8	10.1	171	230	-45	2.9	5,600 @-35°C	PAO Blended Synthetic
5W-30	0.856	64.3	10.6	154	234	-40	2.9	6,300 @-30°C	Semi-Synthetic

* The above data may differ slightly from the actual value of the product within the range where there is no abnormality in product performance.



Description

Kixx GX7 Diesel is a fully synthetic Low SAPS engine oil engineered to comply with the latest ACEA and API international standard, provides unsurpassed lubrication with a wide range of temperature for today's engines operating in severe conditions.

Features & Benefits

- Maximize engine life based on outstanding wear protection
- Extends the service life of emission after treatment systems by preventing clogging in DPFs and TWC (Three-Way Catalytic Converter)
- Excellent low temperature fluidity for quick and easy start-ups in cold weather
- Keeps engine clean through outstanding resistance to high temperature varnish and low temperature sludge deposit formation
- Excellent oil consumption control

Application

- Diesel-powered vehicles with DPF/CPF/EGR, etc.
- Gasoline and LPG engine vehicles equipped with GDI / T-GDI / GPF / DOHC / EFI / VVT, etc.
- Recommended engine oils for vehicles with the following "Performance Standard".

Performance Standard

- ACEA C2/C3, API SP
- MB 229.31 Recommended

Kixx GX7 Diesel

High grade diesel engine oil, the perfect fit for emission reduction systems & high durability

ACEA C2/C3, API SP

Typical Properties

SAE Viscosity Grade	Density	Kinematic Viscosity		Viscosity Index	Flash Point	Pour Point	HTHS	CCS	Base Oil
	kg/L @15°C	mm ² /s @40°C	mm ² /s @100°C		°C	°C	mPa·s @150°C	cP	
5W-30	0.850	71.8	12.3	170	224	-41	3.6	4,600 @-30°C	Fully Synthetic

* The above data may differ slightly from the actual value of the product within the range where there is no abnormality in product performance.



Description

Kixx GX5 is formulated with synthetic technology base oil and high-performance additives. It is optimized to provide outstanding protection and lubricity in all passenger cars and light truck gasoline engines.

Features & Benefits

- Maximizes engine life through superior wear and deposit control under all operating conditions.
- Provides significant fuel savings by reducing frictional losses.
- Protects against start-up wear in cold conditions through excellent low-temperature fluidity.
- Maintains power and economy by minimizing wear in even the most sophisticated valve train mechanisms, including those with variable valve timing.

Application

- All passenger car and light truck four-stroke gasoline engines, both naturally aspirated and turbocharged, including those featuring the most recent valve train and emission
- Suitable for small four-stroke gasoline engines in motorcycle and portable power equipment where engine manufacturers allow the use of conventional passenger car motor oils and do not require a purpose-design lubricant

Performance Standard

- API SL

Kixx GX5

Gasoline engine oil,
the perfect fit for smart consumers

API SL

Typical Properties

SAE Viscosity Grade	Density	Kinematic Viscosity		Viscosity Index	Flash Point	Pour Point	HTHS	CCS	Base Oil
	kg/L @15°C	mm ² /s @40°C	mm ² /s @100°C		°C	°C	mPa·s @150°C	cP	
5W-30	0.856	61.7	10.3	154	224	-41	3.1	5,800 @-30°C	Semi-Synthetic
10W-30	0.863	73.2	10.9	138	238	-35	3.2	5,900 @-25°C	Semi-Synthetic
10W-40	0.862	94.4	13.8	148	234	-36	3.8	6,300 @-25°C	Semi-Synthetic
15W-40	0.868	110.6	14.4	132	249	-29	4.0	6,400 @-20°C	Semi-Synthetic

* The above data may differ slightly from the actual value of the product within the range where there is no abnormality in product performance.



Description

Kixx GX5 is a high-quality engine oil designed to meet the requirements of passenger car and light truck engines where API SJ performance is required.

Features & Benefits

Enhanced Engine Protection

Proven metallo-organic anti-wear additive system forms a protective layer on contact surfaces to control wear. Effective corrosion inhibitors protect against rust and corrosion.

Trouble-free operation

Special combination of detergent and dispersant additives controls piston and ring deposits that can adversely affect power and performance.

Long periods between overhauls

Good thermal stability and oxidation resistance combats in-service oil degradation that contributes to filter blocking and sludge formation.

Application

- Gasoline engines (four-stroke)
- Gasoline engines equipped with emissions control equipment
- Industrial or marine applications using passenger car type gasoline engines

Performance Standard

- API SJ

Kixx GX5

Gasoline engine oil,
the perfect fit for smart consumers

API SJ

Typical Properties

SAE Viscosity Grade	Density	Kinematic Viscosity		Viscosity Index	Flash Point	Pour Point	HTHS	CCS	Base Oil
	kg/L @15°C	mm ² /s @40°C	mm ² /s @100°C		°C	°C	mPa·s @150°C	cP	
5W-30	0.856	64.7	10.8	158	224	-43	3.1	5,000 @-30°C	Semi-Synthetic
10W-30	0.863	73.4	11.0	139	240	-36	2.9	5,400 @-25°C	Semi-Synthetic
10W-40	0.861	96.2	14.3	153	246	-38	3.8	5,000 @-25°C	Semi-Synthetic

* The above data may differ slightly from the actual value of the product within the range where there is no abnormality in product performance.



Description

Kixx GX5 is a high-quality engine oil designed to meet the requirements of passenger car and light truck engines where API SJ performance is required.

Features & Benefits

Enhanced Engine Protection

Proven metallo-organic anti-wear additive system forms a protective layer on contact surfaces to control wear. Effective corrosion inhibitors protect against rust and corrosion.

Trouble-free operation

Special combination of detergent and dispersant additives controls piston and ring deposits that can adversely affect power and performance.

Long periods between overhauls

Good thermal stability and oxidation resistance combats in-service oil degradation that contributes to filter blocking and sludge formation.

Application

- Gasoline engines (four-stroke)
- Gasoline engines equipped with emissions control equipment
- Industrial or marine applications using passenger car type gasoline engines

Performance Standard

- API SF

Kixx GX5

Gasoline engine oil,
the perfect fit for smart consumers

API SF

Typical Properties

SAE Viscosity Grade	Density	Kinematic Viscosity		Viscosity Index	Flash Point	Pour Point	HTHS	CCS	Base Oil
	kg/L @15°C	mm ² /s @40°C	mm ² /s @100°C		°C	°C	mPa·s @150°C	cP	
20W-50	0.871	154.4	18.4	133	278	-32	5.0	5,100 @-15°C	Semi-Synthetic
10W	0.865	51.9	7.8	118	248	-39	2.6	6,400 @-25°C	Synthetic Technology

* The above data may differ slightly from the actual value of the product within the range where there is no abnormality in product performance.



Description

Kixx GX5 Diesel is engineered for hard-working gasoline and diesel engines. It is a high performance, HVI engine oil that provides unsurpassed lubrication with a wide range of temperature for today's gasoline and diesel RV engines operating under severe conditions.

Features & Benefits

- Maximize engine life based on outstanding wear protection
- Exceptional high temperature protection for hot running engines under heavy load
- Excellent low temperature fluidity for quick and easy start-ups in cold weather
- Keeps engine clean through outstanding resistance to high temperature varnish and low temperature sludge deposit formation

Application

- Gasoline, diesel powered RV and SUV equipped with CRDI / Turbocharger / Intercooler
- Recommended engine oils for vehicles with the following "Performance Standard".
* Not recommended for use in DPF equipped vehicles

Performance Standard

- ACEA A3/B4, E7, API CI-4/SL
- MB 228.3, Volvo VDS-3 Recommended

Kixx GX5 Diesel

Diesel engine oil,
the perfect fit for ACEA A3/B4 specification

ACEA A3/B4, E7, API CI-4/SL

Typical Properties

SAE Viscosity Grade	Density	Kinematic Viscosity		Viscosity Index	Flash Point	Pour Point	HTHS	CCS	Base Oil
	kg/L @15°C	mm ² /s @40°C	mm ² /s @100°C		°C	°C	mPa·s @150°C	cP	
10W-40	0.865	106.3	15.6	156	236	-43	4.1	6,000 @-25°C	Fully Synthetic

* The above data may differ slightly from the actual value of the product within the range where there is no abnormality in product performance.

02 Commercial Vehicle

DX9	Kixx DX9 PAO Kixx DX9 Euro Kixx DX9 DH-2 Kixx DX9
DX7	Kixx DX7
DX5	Kixx DX5 Kixx DX5 CNG





Kixx DX9 PAO

Premium heavy duty diesel engine oil for API CK-4, ACEA E8

API CK-4, CJ-4, CI-4 PLUS, ACEA E8, E11, E6

Description

Kixx DX9 PAO is super premium performance, synthetic heavy duty diesel engine oil specifically designed for new low emission engines with ULSD. It is formulated using the most advantaged additive technology, providing outstanding engine protection for EURO VI emissions standard for on highway diesel trucks. It meets the latest stringent EGR soot control and particulate requirements. It is also recommended for a wide range of diesel and gasoline engines that require API CK-4, ACEA E8 performance lubricants operating under the most severe service conditions.

Features & Benefits

Enhanced emission control system life

Extends DPF life for less frequent downtime and cleaning, thus decreasing your maintenance.

Reduced Maintenance and Operating costs

Excellent soot dispersion and wear control. Cylinders, pistons, rings, and injectors are well protected against wear and corrosion, lasting longer in service and requiring less maintenance.

Extends engine life to overhaul

High level of anti-wear additive protects against valve train wear and scuffing of highly loaded parts operating under boundary lubrication conditions.

Application

- It is recommended for use in on/off-highway and construction applications which require an API CK-4/CJ-4.
- Meets major diesel engine manufacturers requirements.
- Commercial road transport, including the latest electronic controlled engines.

Performance Standard

- API CK-4, CJ-4, CI-4 PLUS, ACEA E8, E11, E6
- Volvo VDS-4.5, Mack EOS-4.5, Renault VI RLD-3, Cummins CES 20086, DDC 93K222
- Daimler DTFR 15C100(MB 228.31), JASO DH-2

Typical Properties

SAE Viscosity	Density	Kinematic Viscosity		Viscosity Index	Flash Point	Pour Point	TBN	HTHS	CCS	Base Oil
	kg/L @15°C	mm ² /s @40°C	mm ² /s @100°C		°C	°C	mgKOH/g	mPa·s @150°C	cP	
15W-40	0.8738	120	15.9	140	242	-36	10.3	4.4	5,750 @-20°C	PAO Blended Synthetic

* The above data may differ slightly from the actual value of the product within the range where there is no abnormality in product performance.



Kixx DX9 Euro

Top-grade heavy duty diesel engine oil, The perfect fit for EURO 6 standards

API CK-4, CJ-4, CI-4 PLUS, ACEA E8, E11, E6

Description

Kixx HDX Euro is a premium performance, multigrade, heavy duty diesel engine oil specifically designed for new low emission heavy engines with ULSD. It is formulated using the most advanced additive technology available to provide outstanding engine protection for EURO VI emissions standard for on highway diesel trucks. It meets the latest stringent EGR soot control and particulate requirements. It is also recommended for a wide range of diesel and gasoline engines that require API CK-4, ACEA E8 performance lubricants operating under the most severe service conditions.

Features & Benefits

Enhanced emission control system life

Extends DPF life for less frequent downtime and cleaning, thus decreasing your maintenance.

Reduced Maintenance and Operating costs

Excellent soot dispersion and wear control. Cylinders, pistons, rings, and injectors are well protected against wear and corrosion, lasting longer in service and requiring less maintenance.

Extends engine life to overhaul

High level of anti-wear additive protects against valve train wear and scuffing of highly loaded parts operating under boundary lubrication conditions.

Application

- It is recommended for use in on/off-highway and construction applications which require an API CK-4/CJ-4.
- It is designed to meet EURO VI emission standards.

Performance Standard

- API CK-4, CJ-4, ACEA E8, E11
- Volvo VDS-4.5, Mack EOS-4.5, Renault VI RLD-3, Cummins CES 20086, DDC 93K222
- Daimler DTF 15C100(MB 228.31), MAN 3477, JASO DH-2

Typical Properties

SAE Viscosity	Density	Kinematic Viscosity		Viscosity Index	Flash Point	Pour Point	TBN	HTHS	CCS	Base Oil
	kg/L @15°C	mm ² /s @40°C	mm ² /s @100°C		°C	°C	mgKOH/g	mPa·s @150°C	cP	
10W-30	0.867	85	12.3	140	225	-41	8.9	3.6	6,400 @-25°C	Semi-Synthetic
15W-40	0.873	118	15.3	135	245	-38	8.9	4.2	6,300 @-20°C	Synthetic Technology

* The above data may differ slightly from the actual value of the product within the range where there is no abnormality in product performance.



Description

Kixx DX9 DH-2 is a high-performance diesel engine oil designed to meet the performance requirement of high output, JASO DH-2. It is formulated from an optimized high quality oil blend plus specialized additives to provide the maximum oil drain intervals recommended for engines and is optimally formulated for new low emission engines running on Ultra Low Sulfur Diesel (ULSD) fuel. The DH-2 classification applies to Japanese made diesel engines with after-treatment devices, such as DPFs and catalysts that comply with up-to-date exhaust emission regulations. It is suitable for the medium- and heavy-duty engines built by manufacturers like Hino Motors Ltd., Isuzu Motors Ltd., Mitsubishi Fuso Truck & Bus Corp. and Nissan Diesel Motor Co. Ltd.

Features & Benefits

Enhanced emission control system life

Extends DPF life for less frequent downtime and cleaning, thus decreasing your maintenance.

Reduced Maintenance and Operating costs

Excellent soot dispersion and wear control. Cylinders, pistons, rings, and injectors are well protected against wear and corrosion, lasting longer in service and requiring less maintenance.

Extends engine life to overhaul

High level of anti-wear additive protects against valve train wear and scuffing of highly loaded parts operating under boundary lubrication conditions.

Application

- Recommend for use in on-/off-highway and construction applications which require an DH-2 Service Category.
- Meets Japanese major diesel engine manufacturers requirements.

Performance Standard

- JASO DH-2, API CK-4, ACEA E11, Volvo VDS-4.5, Mack EOS-4.5, Renault VI RLD-3, Cummins CES 20086
- Caterpillar ECF-3, Daimler DTF 15C100(MB 228.31), MTU Type 2.1, Deutz DQC III-10 LA. DFS 93K222, CAT ECF-3

Kixx DX9 DH-2

Top-grade heavy duty diesel engine oil,
the perfect fit for JASO DH-2 specifications

JASO DH-2, API CK-4, ACEA E11

Typical Properties

SAE Viscosity	Density	Kinematic Viscosity		Viscosity Index	Flash Point	Pour Point	TBN	HTHS	CCS	Base Oil
	kg/L @15°C	mm ² /s @40°C	mm ² /s @100°C		°C	°C	mgKOH/g	mPa·s @150°C	cP	
10W-30	0.873	114	14.8	132	244	-42	9.6	4.2	6,700 @-25°C	Synthetic Technology
15W-40	0.867	77	11.6	143	234	-42	9.4	3.4	5,300 @-20°C	

* The above data may differ slightly from the actual value of the product within the range where there is no abnormality in product performance.



Description

Kixx DX9 is a premium performance, multigrade, heavy-duty diesel engine oil designed specifically for 2017 model year on-highway engines using Ultra Low Sulfur Diesel (ULSD) and Tier 4 non-road emission standards. It is formulated with the most advanced additive technology available to provide superior engine protection for the EURO VI emission standard for on-highway diesel trucks. It is also recommended for a wide range of diesel engines requiring the latest API CK-4, ACEA E9 performance lubricants operating under the most severe service conditions.

Features & Benefits

Enhanced emission control system life

Extends DPF life for less frequent downtime and cleaning, thus decreasing your maintenance.

Reduced Maintenance and Operating costs

Excellent soot dispersion and wear control. Cylinders, pistons, rings, and injectors are well protected against wear and corrosion, lasting longer in service and requiring less maintenance.

Extends engine life to overhaul

High level of anti-wear additive protects against valve train wear and scuffing of highly loaded parts operating under boundary lubrication conditions.

Application

- Kixx DX9 is a mixed fleets motor oil recommended for diesel engines equipped with DPF (Diesel Particulate Filter) or SCR (Selective Catalytic Reduction) and in other after-treatment systems where an API CK-4 engine oil is specified
- It is designed to meet EURO VI emission standards

Performance Standard

- API CK-4, ACEA E11, Volvo VDS-4.5, Mack EOS-4.5, Renault VI RLD-3, Cummins CES 20086, Caterpillar ECF-3
- Daimler DTF 15C100(MB 228.31), MTU Type 2.1, Deutz DQC III-10 LA. DFS 93K222, Ford WSS-M2C171-F1

Kixx DX9

Top-grade heavy duty diesel engine oil,
producing superior performances

API CK-4, ACEA E11

Typical Properties

SAE Viscosity	Density	Kinematic Viscosity		Viscosity Index	Flash Point	Pour Point	TBN	HTHS	CCS	Base Oil
	kg/L @15°C	mm ² /s @40°C	mm ² /s @100°C		°C	°C	mgKOH/g	mPa·s @150°C	cP	
10W-40	0.863	99	14.7	154	230	-41	9.2	3.7	5,000 @-25°C	Semi-Synthetic
10W-30	0.864	82	12.4	147	230	-39	9.1	3.7	5,100 @-25°C	Synthetic Technology
15W-40	0.870	110	14.8	140	250	-40	9.6	4.1	5,100 @-20°C	

* The above data may differ slightly from the actual value of the product within the range where there is no abnormality in product performance.



Kixx DX7

Premium heavy duty diesel engine oil, producing superior performances

API CJ-4, ACEA E11

Description

Kixx DX7 is a premium heavy duty diesel engine oil with exceptional performance. Recommended for trucks, buses and construction equipment, Kixx DX7 is specifically optimized for enhanced engine protection, power retention and emissions reduction.

Features & Benefits

Enhanced emission control system life

Extends DPF life for less frequent downtime and cleaning, thus decreasing your maintenance.

Maintain power

Maintain strong power by forming a sufficient lubricating film even under high temperature and high speed driving conditions.

Extends engine life to overhaul

High level of anti-wear additive protects against valve train wear and scuffing of highly loaded parts operating under boundary lubrication conditions.

Application

- Trucks, buses and construction equipment with turbochargers/EGR/DPF/CPF/SCR
- Vehicles and equipment for which engine oils of the following [Performance Standard] are recommended

Performance Standard

- API CJ-4, ACEA E11
- Volvo VDS-4, Mack EO-O Premium Plus, Renault VL RLD-3, Cummins 20081
- Daimler DTFR 15C100(MB 228.31), MAN 3275, MTU Type 2.1, Cat ECF-3/ECF-2/ECF-1a

Typical Properties

SAE Viscosity	Density	Kinematic Viscosity		Viscosity Index	Flash Point	Pour Point	TBN	HTHS	CCS	Base Oil
	kg/L @15°C	mm ² /s @40°C	mm ² /s @100°C		°C	°C	mgKOH/g	mPa·s @150°C	cP	
10W-40	0.863	99	14.7	155	230	-40	9.1	4.0	5,200 @-25°C	Semi-Synthetic
10W-30	0.864	82	12.4	147	230	-39	9.1	3.7	5,100 @-25°C	
15W-40	0.871	110	14.7	138	243	-37	8.8	4.0	5,300 @-20°C	Synthetic Technology

* The above data may differ slightly from the actual value of the product within the range where there is no abnormality in product performance.



Kixx DX7

High-grade heavy-duty diesel engine oil, producing excellent performances

API CI-4/SL, ACEA E7

Description

Kixx DX7 is a premium performance, multigrade, heavy-duty diesel engine oil specifically designed to lubricate a wide range of diesel and gasoline engines requiring API CI-4, ACEA E7 performance lubricants operating under the most severe service.

Features & Benefits

Minimizes fleet maintenance costs

Exceptional soot dispersion keeps fuel soot in suspension, avoiding filter plugging, cylinder head sludge, abrasive polishing wear and oil thickening.

Minimizes fleet operating costs

Excellent deposit control on valves and piston crownlands reduces oil consumption. Exceptional oxidation stability and soot control extend oil drain capability so that equipment is in service longer generating revenue.

Extends engine life to overhaul

High level of anti-wear additive protects against valve train wear and scuffing of highly loaded parts operating under boundary lubrication conditions.

Application

- Trucks, buses and construction equipment with turbochargers/EGR/DPF/CPF/SCR
- Vehicles and equipment for which engine oils of the following [Performance Standard] are recommended

Performance Standard

- API CI-4/SL, ACEA E7
- Volvo VDS-3, Mack EO-M Plus, Renault RLD-2, CES 20078
- DTFR 15B110(MB 228.3), MAN 3275, MTU Type 2, Cat ECF-2/1a

Typical Properties

SAE Viscosity	Density	Kinematic Viscosity		Viscosity Index	Flash Point	Pour Point	TBN	HTHS	CCS	Base Oil
	kg/L @15°C	mm ² /s @40°C	mm ² /s @100°C		°C	°C	mgKOH/g	mPa·s @150°C	cP	
10W-30	0.864	80	12.0	146	234	-41	11.1	3.5	5,500 @-25°C	Semi-Synthetic
10W-40	0.863	102	15.3	157	232	-42	11.2	4.2	5,000 @-25°C	
15W-40	0.871	104	14.3	140	237	-41	10.2	4.0	4,600 @-20°C	Synthetic Technology
20W-50	0.879	177	20.0	131	266	-33	10.5	5.2	6,500 @-15°C	

* The above data may differ slightly from the actual value of the product within the range where there is no abnormality in product performance.



Description

Kixx DX5 is a premium performance, multigrade, heavy-duty diesel engine oil specifically designed to lubricate a wide range of diesel engines requiring API CH-4, ACEA E7 performance lubricants operating under the most severe service conditions.

Features & Benefits

Maximum power output

Exceptional soot dispersion keeps fuel soot in suspension, avoiding filter plugging, cylinder head sludge, abrasive polishing wear and oil thickening.

Reduced maintenance costs

Excellent deposit control on valves and piston crownlands reduces oil consumption. Exceptional oxidation stability and soot control extend oil drain capability so that equipment is in service longer generating revenue.

Saves on inventory costs

High level of anti-wear additive protects against valve train wear and scuffing of highly loaded parts operating under boundary lubrication conditions.

Application

- Mixed fleets of European, North American diesel engines (high speed, 4stroke, turbocharged, naturally aspirated)
- Vehicles and equipment for which engine oils of the following [Performance Standard] are recommended

Performance Standard

- API CH-4, ACEA E7
- CES 20076/20077, CAT ECF-1a, MAN 3275, MTU Type 2, Deutz DQC III-10

Kixx DX5

Heavy-duty diesel engine oil for API CH-4

API CH-4, ACEA E7

Typical Properties

SAE Viscosity	Density	Kinematic Viscosity		Viscosity Index	Flash Point °C	Pour Point °C	TBN mgKOH/g	HTHS mPa·s @150°C	CCS cP	Base Oil
	kg/L @15°C	mm ² /s @40°C	mm ² /s @100°C							
10W-30	0.8640	101	15.1	157	240	-42	9.9	4.3	5,000 @-25°C	Synthetic Technology
10W-40	0.8655	75	11.4	146	230	-41	10.3	3.5	5,200 @-25°C	
15W-40	0.8712	113	15.1	138	240	-38	9.2	3.8	5,500 @-20°C	
20W-50	0.8779	173	19.7	131	242	-34	9.4	4.4	6,700 @-15°C	

* The above data may differ slightly from the actual value of the product within the range where there is no abnormality in product performance.



Description

Kixx DX5 is a high performance, multigrade, heavy-duty diesel engine oil specifically designed to lubricate a wide range of diesel engines requiring API CG-4 performance lubricants.

Features & Benefits

Minimizes fleet maintenance costs

Exceptional soot dispersion keeps fuel soot in suspension, avoiding filter plugging, cylinder head sludge, abrasive polishing wear and oil thickening.

Prolongs engine life

Proven metallo-organic anti-wear additive system provides excellent protection against wear of critically loaded components under all operating conditions.

Multigrade viscosity provides additional protection against wear at start-up and under high temperature operating conditions.

Preserves full power and performance

Metallic detergent and ashless dispersant additive system preserves full power and performance by providing excellent upper ring-belt deposit control under the high temperatures encountered in turbocharged diesel engines.

Application

- Mixed fleets of European, North American diesel engines (high speed, 4 stroke, turbocharged, naturally aspirated)
- Vehicles and equipment for which engine oils of the following [Performance Standard] are recommended

Performance Standard

- API CG-4

Kixx DX5

Heavy-duty diesel engine oil for API CG-4

API CG-4

Typical Properties

SAE Viscosity	Density	Kinematic Viscosity		Viscosity Index	Flash Point °C	Pour Point °C	TBN mgKOH/g	HTHS mPa·s @150°C	CCS cP	Base Oil
	kg/L @15°C	mm ² /s @40°C	mm ² /s @100°C							
10W-40	0.8633	100	14.9	157	222	-42	9.5	4.0	4,700 @ -25°C	Synthetic Technology
15W-40	0.8704	114	15.2	138	242	-39	9.3	4.2	5,300 @ -20°C	

* The above data may differ slightly from the actual value of the product within the range where there is no abnormality in product performance.



Description

Kixx DX5 is a high performance, multigrade diesel engine oil specially designed to lubricate a wide range of diesel and gasoline engines requiring API CF-4 performance lubricants.

Features & Benefits

Maximum power output

Advanced detergent/dispersant additive system maintains power output by providing outstanding deposit control under the high temperature conditions encountered in turbocharged engines.

Reduced maintenance costs

Highly effective detergent additive system minimizes piston crown land deposits which can lead to damaged bore polishing. The proven metallo-organic anti-wear additive system reduces wear in engines under severe service by forming a protective layer on all metal contact surfaces.

Saves on inventory costs

The mid-ash, medium dispersant formulation provides very good overall performance in mixed fleets of different engine designs, allowing fewer oils to be stored and reducing the chance of problems arising through product misapplication.

Application

- Mixed fleets of European, North American diesel engines (high speed, 4 stroke, turbocharged, naturally aspirated)
- Vehicles and equipment for which engine oils of the following [Performance Standard] are recommended

Performance Standard

- API CF-4

Kixx DX5

Heavy-duty diesel engine oil for API CF-4

API CF-4

Typical Properties

SAE Viscosity	Density	Kinematic Viscosity		Viscosity Index	Flash Point °C	Pour Point °C	TBN mgKOH/g	HTHS mPa·s @150°C	CCS cP	Base Oil
	kg/L @15°C	mm ² /s @40°C	mm ² /s @100°C							
5W-30	0.855	63	10.6	161	230	-43	8.3	3.1	4,600 @-30°C	Semi-Synthetic
10W-30	0.865	71	10.8	141	226	-42	8.3	3.2	5,900 @-25°C	
15W-40	0.868	111	14.8	139	244	-38	8.4	4.2	6,200 @-20°C	
20W-50	0.876	170	19.9	136	258	-34	10.8	5.2	5,600 @-15°C	

* The above data may differ slightly from the actual value of the product within the range where there is no abnormality in product performance.



Description

Kixx DX5 is a high performance, multigrade diesel engine oil specially designed to lubricate a wide range of diesel and gasoline engines requiring API CF performance lubricants.

Features & Benefits

Maximum power output

Advanced detergent/dispersant additive system maintains power output by providing outstanding deposit control under the high temperature conditions encountered in turbocharged engines.

Reduced maintenance costs

Highly effective detergent additive system minimizes piston crown land deposits which can lead to damaging bore polishing. The proven metallo-organic anti-wear additive system reduces wear in severe service by forming a protective layer on all metal contact surfaces.

Application

- Mixed fleets of diesel engines (high speed, four-stroke, turbocharged or naturally aspirated)
- Small diesel engines in marine service (e.g. fishing, river transport, etc.)
- Generator sets

Performance Standard

- API CF

Kixx DX5

Heavy-duty diesel engine oil for API CF

API CF

Typical Properties

SAE Viscosity	Density	Kinematic Viscosity		Viscosity Index	Flash Point °C	Pour Point °C	TBN mgKOH/g	HTHS mPa·s @150°C	CCS cP	Base Oil
	kg/L @15°C	mm ² /s @40°C	mm ² /s @100°C							
10W	0.8639	43	7.1	125	230	-44	9.5	-	3,800@-25°C	Semi-Synthetic
30	0.8757	93	11.5	112	256	-34	9.2	3.4	-	
40	0.8787	135	14.9	112	284	-35	9.6	4.2	-	
50	0.8761	170	19.9	136	258	-34	10.8	5	-	

* The above data may differ slightly from the actual value of the product within the range where there is no abnormality in product performance.



Description

Kixx DX5 CNG is a heavy-duty, low ash, multi-grade crankcase oil specifically designed to lubricate a wide range of spark ignition, natural gas or compressed natural gas engines. It provides the protection needed for mobile natural gas engines and excellent engine oil for stationary applications. It has a lot of performances like the protection against deposits in the higher temperature gas combustion chamber, wear protection, foam protection, exceptional oxidation and nitration control ability.

Features & Benefits

Maximizes engine life

Detergent additive provides excellent piston deposit control. Balanced sulfated ash level reduces valve surface deposits.

Reduced maintenance costs

Outstanding oxidation and nitration resistance minimizes acid number increase, providing protection against bearing corrosion.

Increased service life

Low phosphorus content ensures exhaust system catalyst compatibility therefore maximizes unit's service life.

Application

- Mobile heavy-duty automotive engines converted to run on sweet natural gas or LPG
- Gas powered co-generation engines
- Vehicles and equipment for which engine oils of the following [Performance Standard] are recommended

Performance Standard

- API CF, Cummins CES 20074

Kixx DX5 CNG

Top Performance Low Ash CNG Engine Oil

API CF

Typical Properties

SAE Viscosity	Density	Kinematic Viscosity		Viscosity Index	Flash Point	Pour Point	TBN	HTHS	CCS	Base Oil
	kg/L @15°C	mm ² /s @40°C	mm ² /s @100°C		°C	°C	mgKOH/g	mPa·s @150°C	cP	
15W-40	0.869	110	14.9	141	238	-36	6.3	4.1	4,700 @-20°C	Synthetic Technology

* The above data may differ slightly from the actual value of the product within the range where there is no abnormality in product performance.



Kixx Lubricating for Long Protection

03 Motorcycle

MX9

Kixx MX9 4T

Kixx MX9 Scooter

MX7

Kixx MX7 4T

Kixx MX7 Scooter

Kixx MX7 2T

MX5

Kixx MX5



Kixx *Lubricating for Fast Moving*



Description

Kixx MX9 4T SP is a premium performance, shear-stable, multigrade gasoline engine oil specially designed for use in four-stroke motorcycles and portable power equipment requiring API SP, JASO MA/MA2 lubricants, including high output engines operating in severe service.

Features & Benefits

Prolongs engine life

Proven metal-organic anti-wear additive system reduces wear of highly stressed engine components under severe operating conditions.

Saves on maintenance

High oxidation stability resists oil breakdown under the severe heat stress generated by modern engines, enabling the lubricant to do its primary job of providing effective protection for stressed components.

Lively throttle response

Highly effective detergent/dispersant additive system ensures excellent control of piston ring belt deposits for very good power release and acceleration. Correct frictional characteristics enable smooth operation of wet clutches and back torque limiters.

Good all-temperature protection

Highly shear stable viscosity index improver additive minimizes shear-thinning, particularly in the gearbox, and resists breakdown under the high stresses which occur at high rotational speeds, to provide the correct oil viscosity for protection at both start-up and during high temperature operation.

Application

- Air and liquid-cooled four-stroke motorcycle engines
- Particularly suitable for Japanese high performance motorcycle engines
- Motorcycles with and without oil immersed clutches
- Motorcycles with combined engine/transmission units or separate gear boxes where a multi-grade engine oil is specified
- Motorcycles with back torque limiters
- Motorcycles with exhaust catalytic converters
- Latest generation, four-stroke scooter engines
- Four-stroke gasoline engines fitted to portable power equipment, such as generators, mowers, etc.

Performance Standard

- API SP
- JASO MA2 Approved

Kixx MX9 4T

Top grade engine oil, the perfect fit for four-stroke motorcycles

API SP, JASO MA2

Typical Properties

SAE Viscosity Grade	Density kg/L @15°C	Kinematic Viscosity		Viscosity Index	Flash Point °C	Pour Point °C	HTHS mPa·s @150°C	CCS cP	Base Oil
		mm ² /s @40°C	mm ² /s @100°C						
10W-40	0.857	105.4	15.2	152	252	-39	4.2	6,100 @-25°C	Fully Synthetic
20W-50	0.857	140.2	19.6	161	248	-37	4.9	2,300 @-15°C	Fully Synthetic

* The above data may differ slightly from the actual value of the product within the range where there is no abnormality in product performance.



Description

Kixx MX9 4T is a premium performance, shear-stable, multigrade gasoline engine oil specially designed for use in four-stroke motorcycles and portable power equipment requiring API SN, JASO MA/MA2 lubricants, including high output engines operating in severe service.

Features & Benefits

Prolongs engine life

Proven metal-organic anti-wear additive system reduces wear of highly stressed engine components under severe operating conditions.

Saves on maintenance

High oxidation stability resists oil breakdown under the severe heat stress generated by modern engines, enabling the lubricant to do its primary job of providing effective protection for stressed components.

Lively throttle response

Highly effective detergent/dispersant additive system ensures excellent control of piston ring belt deposits for very good power release and acceleration. Correct frictional characteristics enable smooth operation of wet clutches and back torque limiters.

Good all-temperature protection

Highly shear stable viscosity index improver additive minimizes shear-thinning, particularly in the gearbox, and resists breakdown under the high stresses which occur at high rotational speeds, to provide the correct oil viscosity for protection at both start-up and during high temperature operation.

Application

- Air and liquid-cooled four-stroke motorcycle engines
- Particularly suitable for Japanese high performance motorcycle engines
- Motorcycles with and without oil immersed clutches
- Motorcycles with combined engine/transmission units or separate gear boxes where a multi-grade engine oil is specified
- Motorcycles with back torque limiters
- Motorcycles with exhaust catalytic converters
- Latest generation, four-stroke scooter engines
- Four-stroke gasoline engines fitted to portable power equipment, such as generators, mowers, etc.

Performance Standard

- API SN
- JASO MA2 Approved

Kixx MX9 4T

Top grade engine oil, the perfect fit for four-stroke motorcycles

API SN, JASO MA2

Typical Properties

SAE Viscosity Grade	Density kg/L @15°C	Kinematic Viscosity		Viscosity Index	Flash Point °C	Pour Point °C	HTHS mPa·s @150°C	CCS cP	Base Oil
		mm ² /s @40°C	mm ² /s @100°C						
10W-30	0.856	72.1	10.9	141	254	-38	3.3	5,300 @-25°C	Fully Synthetic
10W-40	0.857	104.5	15.2	153	246	-38	4.1	5,900 @-25°C	Fully Synthetic
20W-50	0.857	139.1	19.7	162	252	-39	4.9	2,300 @-15°C	Fully Synthetic

* The above data may differ slightly from the actual value of the product within the range where there is no abnormality in product performance.



Description

Kixx MX9 Scooter is formulated from Synthetic Technology meeting the requirement of advanced engine oil grade of API SN. It is optimized to provide complete scooter engine oil performance especially for fuel efficiency, deducing friction loss and durability.

Features & Benefits

Fuel economy

The wide temperature range capability of the synthetic technology base fluid ensures correct oil viscosity which reduces friction at start-up and provides maximum lubrication during high temperature operation.

Engine power and maintainability

A reduction in the piston blow-by gas coupled with the oil's anti-sludge characteristics help maintain engine power and cleanliness, which in turn extends the engine's service life.

Oil drainage interval

Excellent oxidation resistance and low volatility will extend oil drainage interval.

All-temperature wear resistance

Advanced non-conventional base oil formula coupled with high performance additive systems and leading-edge viscosity index improver delivers excellent shear stability and maximum wear protection in high speed, high temperature driving conditions as well as a rapid, highly effective oil film protection. It also provides component wear resistance during very low temperature cold starts.

Application

- All gasoline fueled vehicles
- High performance cars equipped with DOHC, EFI and VVT
- Four-stroke gasoline engines in motorcycles (except manual clutch motorcycles)
- Sports Vehicles

Performance Standard

- API SN
- JASO MB Approved

Kixx MX9 Scooter

Top grade engine oil, the perfect fit for four-stroke scooters

API SN, JASO MB

Typical Properties

SAE Viscosity Grade	Density	Kinematic Viscosity		Viscosity Index	Flash Point	Pour Point	HTHS	CCS	Base Oil
	kg/L @15°C	mm ² /s @40°C	mm ² /s @100°C		°C	°C	mPa·s @150°C	cP	
5W-40	0.851	92.9	15.0	170	236	-41	4.0	5,900 @-30°C	Fully Synthetic
10W-30	0.862	70.4	10.7	139	234	-40	3.2	5,200 @-25°C	Semi-Synthetic
10W-40	0.863	101.9	14.5	147	236	-39	4.0	6,100 @-25°C	Semi-Synthetic

* The above data may differ slightly from the actual value of the product within the range where there is no abnormality in product performance.



Description

Kixx MX7 4T is a premium performance, shear-stable, multigrade gasoline engine oil specially designed for use in four-stroke motorcycles and portable power equipment requiring API SL, JASO MA/MA2 lubricants, including high output engines operating in severe service.

Features & Benefits

Prolongs engine life

Proven metal-organic anti-wear additive system reduces wear of highly stressed engine components under severe operating conditions.

Saves on maintenance

High oxidation stability resists oil breakdown under the severe heat stress generated by modern engines, enabling the lubricant to do its primary job of providing effective protection for stressed components.

Lively throttle response

Highly effective detergent/dispersant additive system ensures excellent control of piston ring belt deposits for very good power release and acceleration. Correct frictional characteristics enable smooth operation of wet clutches and back torque limiters.

Good all-temperature protection

Highly shear stable viscosity index improver additive minimizes shear-thinning, particularly in the gearbox, and resists breakdown under the high stresses which occur at high rotational speeds, to provide the correct oil viscosity for protection at both start-up and during high temperature operation.

Application

- Air and liquid-cooled four-stroke motorcycle engines
- Particularly suitable for Japanese high performance motorcycle engines
- Motorcycles with and without oil immersed clutches
- Motorcycles with combined engine/transmission units or separate gear boxes where a multi-grade engine oil is specified
- Motorcycles with back torque limiters
- Motorcycles with exhaust catalytic converters
- Latest generation, four-stroke scooter engines
- Four-stroke gasoline engines fitted to portable power equipment, such as generators, mowers, etc.

Performance Standard

- API SL
- JASO MA2 Approved

Kixx MX7 4T

High grade engine oil, the perfect fit for four-stroke motorcycles

API SL, JASO MA2

Typical Properties

SAE Viscosity Grade	Density	Kinematic Viscosity		Viscosity Index	Flash Point	Pour Point	HTHS	CCS	Base Oil
	kg/L @15°C	mm ² /s @40°C	mm ² /s @100°C		°C	°C	mPa·s @150°C	cP	
10W-30	0.863	73.2	10.9	138	238	-35	3.2	5,900 @-25°C	Semi-Synthetic
10W-40	0.862	94.4	13.8	148	234	-36	3.8	6,300 @-25°C	Semi-Synthetic
15W-40	0.868	110.6	14.4	132	249	-29	4.0	6,400 @-20°C	Semi-Synthetic
20W-40	0.874	122.9	14.3	116	278	-33	4.0	6,100 @-15°C	Semi-Synthetic
20W-50	0.873	159.8	18.4	129	268	-26	4.8	6,200 @-15°C	Semi-Synthetic
25W-60	0.875	239.4	24.9	132	268	-32	6.1	5,400 @-10°C	Semi-Synthetic

* The above data may differ slightly from the actual value of the product within the range where there is no abnormality in product performance.



Description

Kixx MX7 Scooter is formulated from Synthetic Technology meeting the requirement of advanced engine oil grade of API SL. It is optimized to provide complete scooter engine oil performance especially for fuel efficiency, reducing friction loss and durability.

Features & Benefits

Fuel economy

The wide temperature range capability of the synthetic technology base fluid ensures correct oil viscosity which reduces friction at start-up and provides maximum lubrication during high temperature operation.

Engine power and maintainability

A reduction in the piston blow-by gas coupled with the oils anti-sludge characteristics help maintain engine power and cleanliness, which in turn extends the engine's service life.

Oil drainage interval

Excellent oxidation resistance and low volatility will extend oil drainage interval.

All-temperature wear resistance

Advanced non-conventional base oil formula coupled with high performance additive systems and leading-edge viscosity index improver delivers excellent shear stability and maximum wear protection in high speed, high temperature driving conditions as well as a rapid, highly effective oil film protection. It also provides component wear resistance during very low temperature cold starts.

Application

- All gasoline fueled vehicles
- High performance cars equipped with DOHC, EFI and VVT
- Four-stroke gasoline engines in motorcycles (except manual clutch motorcycles)
- Sports Vehicles.

Performance Standard

- API SL
- JASO MB Approved

Kixx MX7 Scooter

High grade engine oil, the perfect fit for four-stroke scooters

API SL, JASO MB

Typical Properties

SAE Viscosity Grade	Density kg/L @15°C	Kinematic Viscosity		Viscosity Index	Flash Point °C	Pour Point °C	HTHS mPa·s @150°C	CCS cP	Base Oil
		mm ² /s @40°C	mm ² /s @100°C						
10W-40	0.862	94.4	13.8	148	234	-36	3.8	6,300 @-25°C	Semi-Synthetic

* The above data may differ slightly from the actual value of the product within the range where there is no abnormality in product performance.



Description

Kixx MX7 2T is a high-performance, two-stroke motorcycle oil formulated with a low-ash additive system. It is prediluted with a special solvent that permits ready mixing with gasoline over a wide temperature range. Dyed distinctively to aid in identifying its presence in fuel/oil mixtures.

Features & Benefits

- Maximizes time between overhauls by minimizing scuffing, wear and deposits.
- Protects against preignition.
- Maximizes engine life by controlling the deposits which lead to ring sticking.
- Maximizes spark plug life by reducing fouling.
- Easy to mix with gasoline.

Application

- Satisfies the performance needs of those manufacturers of two-stroke engines who allow the use of JASO FD oils.
- Recommended for over-the-road service in all two-stroke motorcycle engines, either oil-injected or using a premix of gasoline and oil.
- Manufacturers recommended gasoline-to-oil ratios, up to 50:1, should be used for premixes of gasoline and oil.
- Suitable for use in two-stroke portable power equipment except the most severe chainsaw applications.
- Not recommended for use in ash-sensitive water-cooled two-stroke outboard engines.
- Should not be used in with small air-cooled engines which operate at gasoline-to-oil ratios below 25:1
- Should not be used in any four-stroke engines.

Performance Standard

- JASO FD, ISO L-EGD Recommended
- API TC Recommended

Kixx MX7 2T

Top grade engine oil, the perfect fit for two-stroke motorcycles

JASO FD

Typical Properties

SAE Viscosity Grade	Density kg/L @15°C	Kinematic Viscosity		Viscosity Index	Flash Point °C	Pour Point °C	Base Oil
		mm ² /s @40°C	mm ² /s @100°C				
F/M 2	0.862	49.6	8.4	145	78	-44	Synthetic Technology

* The above data may differ slightly from the actual value of the product within the range where there is no abnormality in product performance.



Description

Kixx MX5 2T is a high-performance, two-stroke motorcycle oil formulated with a low-ash additive system. It is available in one SAE fluidity/miscibility grade, F/M 3, as preferred by oil-injection systems. It is prediluted with a special solvent that permits ready mixing with gasoline over a wide temperature range. Dyed distinctively to aid in identifying its presence in fuel/oil mixtures.

Features & Benefits

- Maximizes time between overhauls by minimizing scuffing, wear and deposits.
- Protects against preignition.
- Maximizes engine life by controlling the deposits which lead to ring sticking.
- Maximizes spark plug life by reducing fouling.
- Easy to mix with gasoline.

Application

- Satisfies the performance needs of those manufacturers of two stroke engines who allow the use of JASO FB oils.
- Recommended for over-the-road service in all two-stroke motorcycle engines, either oil-injected or using a premix of gasoline and oil.
- Manufacturers recommended gasoline-to-oil ratios, up to 50:1, should be used for premixes of gasoline and oil.
- Suitable for use in two-stroke portable power equipment except the most severe chainsaw applications.
- Not recommended for use in ash-sensitive, water-cooled two-stroke outboard engines.
- Should not be used in with small, air-cooled engines which operate at gasoline-to-oil ratios below 25:1
- Should not be used in any four-stroke engines.

Performance Standard

- JASO FB, ISO L-EGB Recommended

Kixx MX5 2T

High grade engine oil, the perfect fit for two-stroke motorcycles

JASO FB

Typical Properties

SAE Viscosity Grade	Density	Kinematic Viscosity		Viscosity Index	Flash Point	Pour Point	Base Oil
	kg/L @15°C	mm ² /s @40°C	mm ² /s @100°C		°C	°C	
F/M 3	0.864	48.2	7.6	124	114	-37	Synthetic Technology

* The above data may differ slightly from the actual value of the product within the range where there is no abnormality in product performance.



Kixx Lubricating for Fast Moving

04 Transmission & Axle

Kixx ATF DX-VI

Kixx ATF Multi

Kixx ATF DX-III

Kixx CVTF/ATF Dual

Kixx CVTF

Kixx DCTF

Kixx Gearsyn GL-4/5

Kixx Geartec GL-5

Kixx Geartec FF GL-4

Kixx Geartec LSD GL-5

Kixx Geartec TO-4





Description

Kixx ATF DX-VI is a premium performance, low viscosity multi-vehicle fluid for modern automatic transmissions, which is blended with synthetic base stocks and advanced high performance additives. It is specially designed to provide improved fuel efficiency and excellent shudder control performance. Kixx ATF DX-VI is officially approved for use by GM and meets or exceeds the requirements of latest OEM specifications such as Ford MERCON LV, Toyota WS, Nissan Matic S, Hyundai SP-IV/SP-IV-RR. It is also suitable for most modern 6+ speed automatic transmissions.

Customer Benefits

- OEM approved and licensed by GM(DEXRON®-VI).
- Improved fuel efficiency and shudder control performance.
- Excellent transmission cleanliness and durability by oxidation/thermal stability.
- Good start operation in cold climates thanks to its excellent low-temperature fluidity.
- Excellent friction performance and shift feel durability for comfort transmission shift.
- Exceptional wear and corrosion performance for long equipment life.

Performance Standard

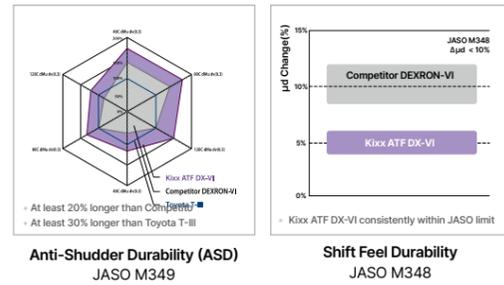
Auto Maker	Specification	Auto Maker	Specification
GM	DEXRON® VI Approved DEXRON® III, IIIH DEXRON® II, IID, IIE	Mercedes / Daimler	MB 236.10/11/12/14/15 MB 236.3/41/5/6/7/8/81/9/91
		Suzuki	3314, 3317
Toyota / Lexus	Type D-II / Type T, T-III, T-IV / Type WS (JWS 3324)	Allison	TES-295/353/389
		Volvo	P/N 1161521, 1161540, 1161640
VW / Audi	G 052 533/055 / G 052 025 (A2) / G 052 990 (A2) / G 055 540 (A2) / G 060 162 (A1, A2, A6)	Ford / Lincoln	WSS M2C 922A1 WSS M2C 924A
		Honda	ATF-Z1(except in CVTs) ATF Type 3.0/3.1
ZF	Lifeguardfluid6, 8 / TE-ML 03D/04D/11A/14A/16L/17C	Mazda	JWS 3317, Type T-IV D-II, M-III, M-V, FZ, F-1
		Hyundai / Kia	SP-III, SP-IV, SP-IV RR ATF Red-1K JWS 3309 T-4 / NWS 9638 T-5 Diaqueen SK, AW, SP-IV Diaqueen J2, J3 Diaqueen ATF-PA
BMW	ATF-3+ / JWS 3309 (T-IV) / LA2634, LT71141 / 7045E, ETL-8072B / 83 22 0 142 516 / 83 22 2 152 426 83 22 2 305 397	Mitsubishi	Matic-D, Matic-J, Matic-K Matic-S, Matic-W
		Nissan	Matic-D, Matic-J, Matic-K Matic-S, Matic-W
JASO	M315-2013 1A-LV, Class 1A		

Kixx ATF DX-VI

Top Performance Low Viscosity Automatic Transmission Fluid

GM DEXRON®-VI, FORD MERCON LV, JASO 1A-LV

Unique Features



Typical Properties

Density	Kinematic Viscosity		Pour Point	Flash Point	Brookfield Viscosity		Base Oil
kg/L @15°C	mm²/s @40°C	mm²/s @100°C	°C	°C	cP @-20°C	cP @-40°C	
0.864	30.3	6.0	-52	224	864	12,100	Fully Synthetic

* The above data may differ slightly from the actual value of the product within the range where there is no abnormality in product performance.



Description

Kixx ATF Multi is a high-performance, high-quality multi-vehicle fluid for automatic transmissions. (Applicable for Slip controlled lock-up clutch) It is a specially formulated fluid designed to meet the requirements of a wide range of Automatic Transmission Specifications requiring Hyundai SP-III, SP-IV, GM DEXRON® III, Ford MERCON®, Toyota T-IV and WS. In addition, it meets the requirements of European OEM's like Volvo CE 97340 and MB, BMW, VW, ZF 4, 5, 6 and 8-speed automatic transmission specifications. Kixx ATF Multi is a special blend of high quality base stocks with an advanced additives system for use as a Service-Fill.

Customer Benefits

- Excellent anti shudder protection.
- Oxidation and thermal stability
- Provides high foam stability.
- Provides good start operation in cold climates thanks to its excellent low-temperature fluidity.
- Provides more stable friction property.
- Use for most 4~8 speed vehicles.

Performance Standard

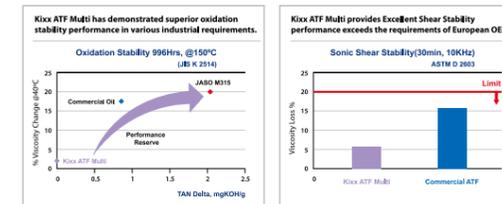
Auto Maker	Specification	Auto Maker	Specification
VW / Audi	G 052 162 (ZF Lifeguard 5) G 055 162-A2, A6 (ZF Lifeguard 6 Plus) G 060 162 (ZF Lifeguard 8) G 052 990 / G 055 025-A2 (JWS 3309)	Hyundai / Kia	Dex-II, SP-II / JWS 3314, NWS 9638 / SP-III, SP-IV, SP-IV M, SP-IV RR, ATF RED 1, RED 1K
		Jaguar	ATF 3403 JLM20238 / ATF 3403-M115 / ATF LT71141, ZF 5HP 24
Mercedes Benz	MB 236.1, 236.2, 236.3 MB 236.5, 236.6, 236.7 MB 236.8, 236.9	JASO	M315-2013 1A / M315-2013 2A
		Mazda	ATF 3317 / ATF D-II, F-1, FZ / ATF M-III, M-V, N-1, S-1
BMW	7045E, ETL-8072B JWS 3309 (T-IV) / LT71141(ZF 5 HP 18FL / 19FL/24A/30)	Mitsubishi	Diaqueen ATF PA / Diaqueen AW Mitsubishi Diaqueen J2, J3, SK / Diaqueen SP-II, SP-III, SP-IV
Ford	MERCON®, FNR5 / WSS M2C-138CJ, M2C166H / WSS M2C-922A1, 924A / WSS M2C 938A	Nissan	Matic Fluid C, D, J / Matic Fluid K, S
Fuso	ATF-A4 / ATF-II / ATF-SP III	Porsche	ATF 3403-M115 / T-IV (JWS 3309) / ZF 5HP 19FL, 5HP 20, LT71141
GM	DEXRON®-II, IID, IIE DEXRON®-III, IIIH / GM/ GMC/Opel/Saturn VI, AW1 / GM9986195(Aisin AW, JWS 3309)	Subaru	ATF, ATF 5AT, ATF HP
		Suzuki	ATF 2326, ATF 2384K / ATF 3314, ATF 3317 / JWS 3309
Honda	ATF Ultra II, DW-1 / ATF-Z1(except in CVTs) / Type 3.0, Type 3.1	Toyota	ATF D-II, D-III, T-III, T-IV(JWS 3309) ATF WS(JWS 3324)
		ZF	4~9 speed transmission / TE-ML 05L, 09, 11A, 11B,
Chrysler / Dodge	ATF+, +2 / ATF +3(MS 7176E), +4(MS 9602) / JWS 3309 (T-IV)	Shell	3403, M115, LA 2634
Isuzu	Besco ATF-II / Besco ATF-III	Texaco	7045-E, 8072B, N402
JEEP	ATF+3, +4		

Kixx ATF Multi

Top Performance Multi-vehicle Automatic Transmission Fluid

JASO 1A, GM DEXRON®-III, TOYOTA T-IV, HYUNDAI SP-III/SP-IV

Unique Features



Typical Properties

Density	Kinematic Viscosity		Pour Point	Flash Point	Brookfield Viscosity		Base Oil
kg/L @15°C	mm²/s @40°C	mm²/s @100°C	°C	°C	cP @-20°C	cP @-40°C	
0.845	35.6	7.0	-49	220	875	14,960	Fully Synthetic

* The above data may differ slightly from the actual value of the product within the range where there is no abnormality in product performance.



Description

Modern vehicle and transmission designs place increased stress on the automatic transmission fluid. Kixx ATF DX-III is superior to any other past or currently ATF for uses in passenger car with automatic transmission. And It can be recommended for Automatic transmission with lock-up clutch. It provides a higher quality performance due in part by its oxidation resistance, low temperature fluidity, appropriate friction performance, high shear stability, and near sludge free operation.

Customer Benefits

- Ensures long life-time
- Provides high foam stability.
- Provides high antirusting performance and lower sludge formation.
- Provides good start operation in cold climates thanks to its excellent low-temperature fluidity.
- Provides more stable friction property.

Application

In accordance with the GM powertrain licensing requirements for the use of the DEXRON trademark, ATF DX-III may be recommended for use in automatic transmissions or other units, such as power-steering systems, industrial hydraulic systems and air compressors for which the service-fill product is specified as DEXRON®-II, DEXRON®-III or DEXRON fluid.

Performance Standard

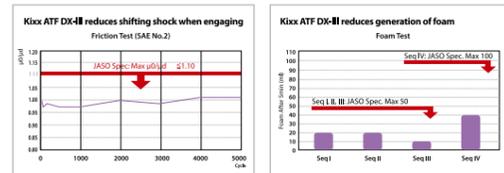
Auto Maker	Specification	Auto Maker	Specification
GM	DEXRON®-II, IID, IIE / DEXRON®-IIIG, IIIH / TASA	Mitsubishi	Diaqueen SP-II, SP-III, SP-IV / Diaqueen AW / Diaqueen J2
Ford	MERCON® / WSS M2C 138CJ, 166H / WSS M2C 922A1, 924A / FNR5	Nissan	Matic Fluid C, D, J, K
Honda	ATF Ultra II / ATF-Z1(except in CVTs)	Suzuki	ATF, ATF HP / ATF 2326, ATF 2384K / JWS 3309 / ATF 3314, ATF 3317
Hyundai / Kia	SP-II, SP-III, SP-IV, SP-IV M / JWS 3314 / Red 1	Toyota	ATF D-I, D-III / ATF T-III, T-IV
JASO	M315-2013 1A / M315-2013 2A	Volvo	CE 97340
Allison	C-3 & 0-4	VW	5HP (19FL, 24A) / G 055 025 A2(JWS 3309) / TL 521 62
		ZF	TE-ML 09, 11A, 11B

Kixx ATF DX-III

Automatic Transmission Fluid

GM DEXRON®-III , MERCON®, ALLISON C-4

Unique Features



Typical Properties

Density	Kinematic Viscosity		Pour Point	Flash Point	Brookfield Viscosity		Base Oil
kg/L @15°C	mm ² /s @40°C	mm ² /s @100°C	°C	°C	cP @-20°C	cP @-40°C	
0.841	33.5	7.02	-48	230	980	11,840	Fully Synthetic

* The above data may differ slightly from the actual value of the product within the range where there is no abnormality in product performance.



Description

Kixx CVTF/ATF Dual is a top performance multifunctional transmission fluid designed to providing superior versatility for both Automatic Transmission and Continuously Variable Transmissions(CVT) Service Fill applications. It is a specially formulated with synthetic base oil and premium additive system to provide good balance of high friction coefficient in steel-on-steel contact and long anti-shudder durability.

Customer Benefits

- Use for most vehicles equipped with CVT or AT
- Superior anti - shudder durability
- Maintain high steel-on-steel friction
- Extended paper friction durability in torque converter
- Retention of torque capacity on aging
- Excellent thermal and oxidation stability

Application

- Push belt or chain type Continuously Variable Transmissions(CVTs)
- Most modern automatic transmissions

Performance Standard

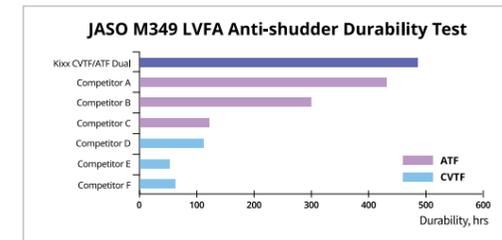
Auto Maker	Specification	Auto Maker	Specification
Toyota	CVTF TC, CVTF FE	Toyota/Aisin	Autofluid D-II and D-III / Type T-IV, WS, JWS 3309, 3314, 3317
Nissan	NS-1, NS-2, NS-3	Nissan	Matic Fluid C, D, J, S
Honda	Z-1, HMMF, HCF-2	Honda	Z-1, ATF DW-1
Mitsubishi	Diaqueen SP-III / Diaqueen CVTF-J1, J4, J4+	Mitsubishi	Diaqueen SP-II & IIM, SP-III / Diaqueen AW/PA, J2, J3, ATF PA
Mazda	Mazda JWS 3320	Mazda	ATF M-III, M-V, FZ
Subaru	Subaru EVT, iCV / Lineartronics Chain CVT	Subaru	Subaru ATF
Daihatsu	Ammix CVT, CVT Fluid DC, DFE	Daihatsu	Ammix ATF D3-SP
Suzuki	CVTF TC/3320, NS-2 / CVT Green 1 & 2	Suzuki	Suzuki ATF
Hyundai/Kia	CVT J1	Isuzu	BESCO ATF-II, ATF-III
GM	GM DEX-CVT	Hyundai/Kia	SP-III, SP-IV
BMW	Mini Cooper EZL 799	GM	Vehicles of model year 2005 and earlier
Audi	Multitronic Chain CVT	Ford	Vehicles of model year 2006 and earlier*
		ZF	ZF manufactured 4~6 speeds ATs

Kixx CVTF/ATF Dual

Top Performance Continuously Variable Transmission Automatic and Transmission Fluid

Unique Features

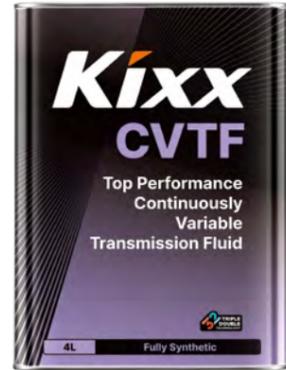
Kixx CVTF/ATF Dual shows superior Anti-shudder Durability performance and high steel-on- steel friction for CVT.



Typical Properties

Appearance	Density	Kinematic Viscosity		Viscosity Index	Pour Point	Flash Point	Brookfield Viscosity		Base Oil
	kg/L @15°C	mm ² /s @40°C	mm ² /s @100°C		°C	°C	m Pas @-30°C	m Pas @-40°C	
Red	0.845	35.8	7.44	181	-49	214	3,510	11,300	Fully Synthetic

* The above data may differ slightly from the actual value of the product within the range where there is no abnormality in product performance.



Description

Kixx CVTF is a premium quality transmission fluid designed to meet the service fill use in a broad range of Continuously Variable Transmissions(CVT). This CVTF is a specially formulated to provide excellent driving comfort, longer life of transmission, extended service interval, excellent wear control and durability between belt and pulley. It is recommended for use in all of the push belt type CVT. And it is recommended to be used in chain type CVTs.

Customer Benefits

- Compatibility in multiple CVT Transmission types
- Superior anti-shudder durability.
- Maintain high steel-steel friction and extended paper frictiondurability
- Prevent wear at the metal-to-metal contact points on parts of transmission system.
- Provides strong oil film/good shear stability
- Excellent thermal and oxidation stability
- Excellent parts material compatibility

Performance Standard

Auto Maker	Specification	Auto Maker	Specification
Nissan	NS-1, NS-2, NS-3	VW / Audi	TL 521 16 (G 052 516) TL 521 80 (G 052 180) Audi Multitronic
Toyota	CVTF TC / CVTF FE	BMW	Mini Cooper EZL 799A / 83 22 0136 376 / 83 22 0 429 154
Subaru	iCVT, iCVT FG / ECVT / Lineartronic chain CVT, CVTII / I Lineartronic High Torque	Honda	HMMF* / HCF2 / Z-1* (CVT model only)
Suzuki	CVTF TC / CVTF 3320 / NS-2 / CVTF Green 1 & 2, Green 1V	Hyundai / Kia	CVT-J1 / SP-III (CVT model only)
Mitsubishi	CVTF-J1 / CVTF-J4, J4+ / SP-III (CVT model only)	JASO	M315-2013 1A(>6.5 cSt) / M315-2013 2A(>6.5 cSt)
		Mazda	JWS 3320
		GM / Saturn	DEX-CVT
		Chrysler / Jeep	NS-2 / CVT+4

* Use in Honda CVT with starting clutch is not recommended

Kixx CVTF

Top Performance Continuously Variable Transmission Fluid

TOYOTA TC/FE, NISSAN NS-3, MITSUBISHI SP-III

Typical Properties

Appearance	Density	Kinematic Viscosity		Viscosity Index	Pour Point	Flash Point	Brookfield Viscosity		Base Oil
	kg/L @15°C	mm ² /s @40°C	mm ² /s @100°C		°C	°C	m Pas @-30°C	m Pas @-40°C	
Red	0.845	34.7	7.36	178	-48	214	970	9,560	Fully Synthetic

* The above data may differ slightly from the actual value of the product within the range where there is no abnormality in product performance.



Description

Kixx DCTF is a high performance, premium DCT fluid specifically designed for use in service-fill applications for a wide range of OEM vehicles equipped with European, Asian and U.S. wet dual clutch transmissions. It was formulated with synthetic base oil and the latest advanced additive technology chosen by various OEMs for their next generation wet-DCT applications.

Customer Benefits

- Improved friction performance to provide shudder free driving experience.
- Excellent oxidation control to provide longer fluid life.
- Exceptional anti-corrosion performance for better hardware protection.
- Superior parts durability for hardware protection.
- Very good low temperature characteristics and high shear resistance.
- Increased fuel economy.

Performance Standard

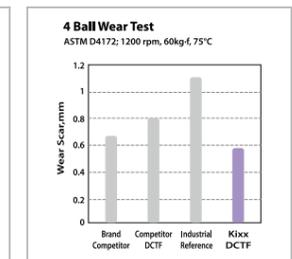
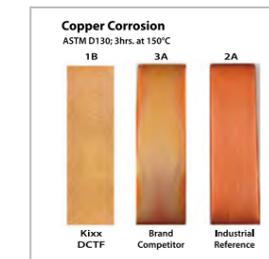
Auto Maker	Specification	Auto Maker	Specification
VW / Audi	TL 052 182 / TL 052 529 / G 052 529 A2 or A6	Peugeot / Citroen	DCS 6-speed(GFT) / 9734.52
VW(Audi/Seat/Skoda)	6-speed DCT	Volvo	Powershift 6-speed (GFT) / 1161838, 1161839
BMW	6-speed DCT / Drivelogic 7-speed (Getrag) / DCTF-1	Chrysler	Powershift 6-speed (Getrag)
Ford / Getrag / Nissan	Powershift 6-speed (GFT) / MZC936A	Renault	EDC 6-speed(Getrag)
Mitsubishi	TC-SST 6-speed (GFT) / MZ320065 Diaqueen SSTF-1	ZF/Porsche	999.917.080.00

Kixx DCTF

Top Performance Dual Clutch Transmission Fluid

VW 6-speed DCT, BMW 6&7-speed DCT

Unique Features



Typical Properties

Appearance	Density	Kinematic Viscosity		Viscosity Index	Pour Point	Flash Point	Brookfield Viscosity		Base Oil
	kg/L @15°C	mm ² /s @40°C	mm ² /s @100°C		°C	°C	m Pas @-30°C	m Pas @-40°C	
Amber & Clear	0.846	35.3	7.2	172	-50	210	945	11,760	Fully Synthetic

* The above data may differ slightly from the actual value of the product within the range where there is no abnormality in product performance.



Description

Premium performance Total Driveline Lubricants(TDL) formulated with PAO & VHVI synthetic base oil and latest advanced additive technologies to provide extremely loaded automotive gear protection and outstanding synchronesh performance. It is recommended for use in both transmission and axle applications.

Customer Benefits

Longer fluid and equipment life

Outstanding oxidation and thermal stable performances help resist oil degradation and prevent damage to gears, bearings and seals from harmful deposits.

Excellent gear protection and synchronizer performance

The Special new additive technologies provide good load carrying capacity and wear protection, and also provide excellent and stable synchronesh compatibility.

Superior cold performance and fuel efficiency

The wide temperature range capability of the PAO based synthetic base fluid ensures correct oil viscosity which reduces friction at low temperature and provides maximum lubrication during high temperature operation.

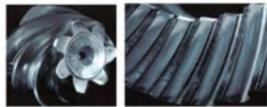
Application

Light and heavy duty automotive axles and spiral-bevel, worm gear differentials automotive manual transmission and transaxles heavily loaded axle and synchronized or non-synchronized gearboxes.

Performance Standard

- API GL-4, GL-5
- MIL-L-2105D

Unique Features

Superior Thermal Stability	Excellent Load Carrying and Antiwear
 <p>Superior thermal stability performance which meets the OEM requirements for axle and transmission.</p>	 <p>Excellent resisting gear wear and scuffing under severe conditions</p>

Kixx Gearsyn GL-4/5

Premium Manual Transmission and Axle Fluid providing ideal protection and performance

API GL-4, GL-5

Typical Properties

SAE Viscosity	Density	Kinematic Viscosity		Viscosity Index	Pour Point	Flash Point	Brookfield Viscosity	Base Oil
	kg/L @15°C	mm ² /s @40°C	mm ² /s @100°C		°C	°C		
75W-90	0.867	82.8	14.7	186	-46	220	30,400	PAO Blended Synthetic

* The above data may differ slightly from the actual value of the product within the range where there is no abnormality in product performance.



Description

Kixx Geartec GL-5 is a high-performance, multipurpose, thermally stable, EP automotive gear lubricant.

Customer Benefits

Provides long equipment life by resisting gear wear and scuffing. Maximizes equipment availability by avoiding premature failure or need for overhaul due to deposit-induced seal wear and leakage. Assists smooth shifting in manual transmissions by controlling glazing and coking of friction surfaces in synchronizing mechanisms. Provides long oil service life by resisting oxidation and oil thickening. Provides against corrosion of ferrous and nonferrous components.

Application

- Recommended for automotive hypoid gear applications requiring lubricants meeting MIL-L-2105D, MIL-L-2105C, MIL-L-2105B, API Service GL-5 or where EP, multi-purpose or hypoid type gear oils are specified.
- Recommended where loading is severe and maximum gear protection is required. "Clean gear" technology makes it particularly suitable where gear oil temperatures are high.
- Not recommended for manual transmissions and transaxles where the manufacturer specifies API GL-4(mild-EP) lubricants, or where the manufacturer advises against the use of API GL-5(multipurpose, hypoid) lubricants.

Performance Standard

- API GL-5
- MIL-L-2105D

Unique Features

High performance, thermally stable, EP automotive gear lubricant (API GL-5, MIL-L-2105D, SAE 80W-90, 85W-140)

Very Good Anti-wear Performance	Outstanding thermal & oxidation stability
<p>High quality base oil and additive provide good resisting gear wear and scuffing under severe conditions.</p>  <p>Kixx Other</p>	<p>Kixx product is superior to other products in oxidation test under 150°C, 96 hours. (Oxidation Test Method : JIS K2514)</p>  <p>Kixx Other</p>

Kixx Geartec GL-5

Top Performance Manual Transmission and Axle Fluid

API GL-5, MIL-L-2105D

Typical Properties

SAE Grade	Density	Kinematic Viscosity		Viscosity Index	Pour Point	Flash Point	Base Oil
	kg/L @15°C	mm ² /s @40°C	mm ² /s @100°C		°C	°C	
75W-90	0.869	85.7	14.65	178	-43	225	Synthetic Technology
80W-90	0.875	136.7	14.65	107	-38	208	Synthetic Technology
85W-140	0.880	306.6	25.68	109	-32	210	Synthetic Technology
90	0.877	176.7	17.51	107	-34	232	Synthetic Technology
140	0.881	316.1	26.18	109	-30	232	Synthetic Technology

* The above data may differ slightly from the actual value of the product within the range where there is no abnormality in product performance.



Description

Kixx Geartec FF GL-4 is a high-performance gear lubricant suitable for transaxle of FF vehicles (front engine front wheel drive). Especially, it is suitable for the transaxle of FF vehicles that needs high quality gear lubricant which provides outstanding oxidation resistance under extremely high temperature condition as well as excellent shear stability. Kixx Geartec FF GL-4 is made from high quality base oils and additives which provide wear resistance, oxidation stability, anti-rust and anticorrosion qualities as well as excellent shear stability.

Customer Benefits

- Reduces operating costs by minimizing wear and extending equipment life.
- Long service life by resisting oxidation and oil thickening.
- Protects against corrosion of ferrous and non-ferrous component.
- Protects gears in severe service through its excellent load-carrying and EP properties.
- Lubricates effectively over a wide temperature range.

Performance Standard

- API GL-4
- MIL-L-2105D

Kixx Geartec FF GL-4

Top Performance Transmission & Transaxle Fluid for FF Vehicles

API GL-4, MIL-L-2105D

Typical Properties

SAE Grade	Density	Kinematic Viscosity		Viscosity Index	Pour Point	Flash Point	Base Oil
	kg/L @15°C	mm ² /s @40°C	mm ² /s @100°C		°C	°C	
75W-85	0.87	72.35	12.32	169	-40	210	Synthetic Technology

* The above data may differ slightly from the actual value of the product within the range where there is no abnormality in product performance.



Description

Kixx Geartec LSD GL-5 is formulated with a high performance sulfur-phosphorous extreme pressure additive, thermally stable hydro-cracked base stocks, and friction modifiers for limited slip performance. Its special friction properties smooth, noise free operation and extended life of these units.

Customer Benefits

Reduced inventory Costs

One gear lubricant for both conventional and limited slip differentials, Simplified inventory saves money, space, handling time and helps avoid product misapplication.

Extended gear life

Extreme pressure properties protect hypoid and other type of gears from scuffing and wear.

Long lubricant Life

Outstanding thermal and oxidation stability allow high temperature operation with long lubricant life.

Quiet operation

Special friction modifier additive provides excellent frictional characteristics, ensuring easy operation.

Application

- Limited Slip hypoid differentials in rear wheel drive cars and light trucks, under all operating conditions.
- Manual Transmissions/transaxles where gear lubricants are recommended
- Complete fill or top-off of all limited slip differentials.
- Differential calling for API GL-5 gear lubricants plus supplemental limited slip additive.
- All conventional differential calling for this viscosity grade in an API GL-5 gear lubricant.
- For-wheel drive transfer case.

Performance Standard

- API GL-5
- MIL-L-2105D
- ZF TE-ML 05C, 12C, 21C Approved
- DOOSAN Genuine Limited Slip Gear Oil

Kixx Geartec LSD GL-5

Top Performance Automotive Limited Slip Differential Fluid

API GL-5, ZF TE-ML 05C, 12C, 21C

Typical Properties

SAE Grade	Density	Kinematic Viscosity		Viscosity Index	Pour Point	Flash Point	Base Oil
	kg/L @15°C	mm ² /s @40°C	mm ² /s @100°C		°C	°C	
80W-90	0.882	140.5	15.1	109	-36	232	Synthetic Technology

* The above data may differ slightly from the actual value of the product within the range where there is no abnormality in product performance.



Kixx Geartec TO-4

Top Performance Off-road Transmission and Hydraulic Fluid

Caterpillar TO-4, ZF TE-ML 03C, 07F

Description

Kixx Geartec TO-4 is specially formulated heavy duty transmission fluid for off-highway power-shift transmission device and hydrodynamic power shift, modern engineering machineries meeting the performance requirements of Caterpillar TO-4, Allison C-4 and other off-road equipment specification.

Customer Benefits

Maximizes transmission life

Extremely shear stable formulation maintains film thickness under severe transmission and hydraulic system operation, protecting vital components against scuffing and wear. Effective antiwear additive also reduces wear by forming a protective layer on metal surfaces under high load conditions.

Longer oil life

Very high oxidation stability protects against the formation of gums and varnishes, reducing oil thickening and increasing oil life.

Saves on maintenance

Highly refined base oils and effective oxidation inhibitors provide excellent thermal and oxidation stability, providing superior resistance to the formation of lacquer, deposits and corrosive oil degradation by-products. Excellent viscosity characteristics at low temperatures ensure rapid oil circulation on start-up, preventing wear which contributes to power loss.

Smooth and quiet operation

Special friction modifier component allows smooth action of the wet brakes and power take off clutches minimizing chatter, stick slip and squawk and ensures maximum brake efficiency.

Application

Kixx Geartec TO-4 is recommended for heavy duty off-highway equipment. It meets performance requirements and can be used in applications where manufacturers recommend the use of Caterpillar TO-4 and Allison C-4 automatic or power-shift Transmission.

- Off-Road Transmission and associated equipment
- Automotive manual transmissions and gearboxes
- Hydraulic systems
- Enclosed oil immersed (wet) brakes

Performance Standard

- Caterpillar TO-4
- ZF TE-ML 03C, 07F Được phê duyệt
- Komatsu KES 07.868.1
- Allison C-4 (đường trường), TES-439
- API GL-4
- Caterpillar TO-2
- Eaton I-280-S
- Vickers M-2950-S

Typical Properties

SAE Viscosity	Density	Kinematic Viscosity		Viscosity Index	Pour Point	Flash Point	Viscosity	Base Oil
	kg/L @15°C	mm ² /s @40°C	mm ² /s @100°C		°C	°C		
10W	0.865	40.4	6.5	113	-41	232	2,420	Synthetic Technology
30	0.874	90	11.1	108	-37	266	9,645	Synthetic Technology
50	0.879	192	18.7	107	-31	270	32,099	Synthetic Technology

* The above data may differ slightly from the actual value of the product within the range where there is no abnormality in product performance.



Kixx Lubricating
for Engine Boosting

05 Specialties

Kixx THF

Kixx PSF

Kixx CX AF Coolant HD

Kixx AF Coolant

Kixx RA Coolant

Kixx Brake

Kixx Engine Clean



Kixx *Lubricating the Future*



Kixx THF

Top Performance Multi-functional Tractor Oil / UTTO

John Deere JDM J20C/D, API GL-4

Description

Kixx THF is a high quality, multi-functional, specially formulated universal tractor transmission oil(UTTO) for use in transmissions, hydraulic systems and final drives of modern farm and industrial wheel and crawler tractors.

Customer Benefits

Maximizes transmission life

Extremely shear stable formulation maintains film thickness under severe transmission and hydraulic system operation, protecting vital components against scuffing and wear. Effective anti-wear additive also reduces wear by forming a protective layer on metal surfaces under high load conditions.

Longer oil life

Very high oxidation stability protects against the formation of gums and varnishes, reducing oil thickening and increasing oil life.

Saves on maintenance

Highly refined base oils and effective oxidation inhibitors provide excellent thermal and oxidation stability, providing superior resistance to the formation of lacquer, deposits and corrosive oil degradation by-products. Excellent viscosity characteristics at low temperatures ensure rapid oil circulation on start-up, preventing wear which contributes to power loss.

Smooth and quiet operation

Special friction modifier component allows smooth action of the wet brakes and power take off clutches minimizing chatter, stick slip and squawk and ensures maximum brake efficiency.

Application

- Where tractor manufacturers specify the use of a THF/UTTO type product
- Mixed fleets of agricultural tractors and associated equipment
- Automotive manual transmissions and gear boxes
- Mobile hydraulic system
- Enclosed oil immersed (wet) brakes
- Power take off (PTO) clutches.

Performance Standard

- API GL-4
- JOHN DEERE JDM J20C, J20D
- CNH CASE / NEW HOLLAND MAT 3525, 3526, FNHA-2-C-201, M2C92A, 134-D
- MASSEY FERGUSON CMS M1135, M1141, M1143, M1145
- CASE MS-1206, MS-1207, MS-1210
- ALLISON C-3/C-4, CATERPILLAR TO-2
- KOMATSU DRESSER B-06-0001, B-06-0002
- KUBOTA UDT, VOLVO CE WB101
- ZF TE-ML 03E, 03F, 05F, 06K

Typical Properties

SAE Grade	Density	Kinematic Viscosity		Viscosity Index	Pour Point	Flash Point	Viscosity, Brookfield	Foam Test			Copper Corrosion
	kg/L @15°C	mm ² /s @40°C	mm ² /s @100°C		°C	°C		cP @ -18°C	ml, Sequence I	ml, Sequence II	
80W	0.866	55.75	9.506	155	-47	232	2,440	5/0	10/0	5/0	1a

* The above data may differ slightly from the actual value of the product within the range where there is no abnormality in product performance.



Kixx PSF

Top Performance Power Steering Fluid

Allison C-4, DEXRON®-III

Description

Kixx PSF is specially designed for use in power steering system applications over a wide temperature range, which is also meets the service requirements of many OEMs such as DEXRON®-II, DEXRON®-III, Allison C-4, etc. It is a high quality performance which meets oxidation resistance, low temperature fluidity, appropriate friction performance, high shear stability.

Customer Benefits

- Ensures long life-time.
- Provides high foam stability.
- Provides excellent corrosion prevention.
- Provides good start operation in cold climates by excellent lowtemperature fluidity.
- Provides more stable friction property.

Application

- Power steering units(Passenger cars, trucks, buses, etc) for service-fill product is specified as DEXRON®-II, DEXRON®-III fluid.

Performance Standard

- General Motors DEXRON®-II, DEXRON®-III
- Allison C-4

Typical Properties

Appearance	Density	Kinematic Viscosity		Viscosity Index	Pour Point	Flash Point	Brookfield Viscosity	
	kg/L @15°C	mm ² /s @40°C	mm ² /s @100°C		°C	°C	m Pas @-20°C	m Pas @-40°C
Red	0.844	34.3	7.2	180	-48	212	1,050	11,000

* The above data may differ slightly from the actual value of the product within the range where there is no abnormality in product performance.



Kixx AF Coolant HD

Top Performance Extended Life Antifreeze Coolant

Description

Kixx AF Coolant HD is an Extended Life Antifreeze Coolants based on ethylene glycol and phosphate using Hybrid Organic Acid Technology(HOAT) without amine, borate, nitrate and silicate. It has been designed for use and can be used in all models of foreign and domestic passenger vehicles, light duty and heavy duty diesel applications especially for heavy duty use. It will provide extended protection against rust, erosion, galvanized corrosion and pitting caused by cavitation for all coolant system metals, including aluminum. It offers excellent protection against temperature extremes, preventing freeze-up and boil over when used in accordance with OEM and product manufacturer's guidelines regarding product dilution. The superior performance and stability of this premium extended life corrosion inhibitor package allows the product to go on working well beyond the lifetime of traditional products.

Customer Benefits

When used as a 50% coolant in softened or de-ionized water, Kixx AF Coolant HD offers the following advantages

- Compatible with other extended life heavy duty diesel coolants such as Caterpillar ELC.
- Compatible with Coolant Extenders currently used with OAT based heavy duty diesel coolants.
- Does not require the use of traditional SCAs(Supplemental Coolant Additives).
- Hard water compatible.
- Excellent liner cavitation protection.
- Excellent high temperature aluminium protection.
- Can be used 10 years or 200,000km for passenger car.

Freezing and boiling protection provided by various concentrations of Kixx AF Coolant HD are as follows :

Amount of Kixx AF Coolant HD for Freezing and Boiling Protection		
Coolant in Water(vol.%)	Down to(°C)	Increase(°C)
60	- 52	10
50	- 36	8
40	- 25	6
30	- 16	4

Application

- Large trucks and buses, automotive vehicles, cars, such as for filling and supplement.
- Industrial vehicles, machinery and equipment, filling and cooling system supplement.
- Marine institutions of cooling device filling and supplement.
- Aircraft de-ice for the filling and supplement.

Performance Standard

- ASTM D 3306, D 4985, D 6210
- JIS K 2234
- KS M 2142

Typical Properties

Test Item	Specific Gravity	Freezing point, °C		Boiling point, °C	Foaming, ml	Reserve alkalinity, ml	PH		Water, wt %
	Undiluted	30% vol% solution in water	50% vol% solution in water	Undiluted	30% vol% solution in water	Undiluted	30% vol% solution in water	50% vol% solution in water	Undiluted
Specification	1.12~1.15	Max -14.5	Max -34.0	Min 155	Max 4	Report	7.0~9.0	7.0~9.0	Max 5.0
Typical Value	1.136	-15.2	-36.5	165	0	12.8	7.74	7.81	4.25

* The above data may differ slightly from the actual value of the product within the range where there is no abnormality in product performance.



Kixx AF Coolant

Top Performance Antifreeze / Coolant

ASTM D 3306

Description

Kixx AF Coolant is a premium quality, ethylene glycol based antifreeze coolant concentrate, designed primarily to meet the stringent corrosion protection requirements of late model car engines which have a significant amounts of aluminum in their construction. It is dyed a distinctive color for easy identification.

Customer Benefits

- Protects cooling systems from corrosion and deposits.
- Provides a higher boiling point for protection against engine overheating.
- Prevents coolant freezing.
- Maximizes aluminum engine component life.
- Long service life.
- Compatible with hard tap water.

Application

- Primarily recommended for late model passenger car and light commercial vehicle engines where enhanced protection of aluminum heat-rejecting surfaces is required. It can also be used in certain cast iron, heavy-duty diesel engines, particularly, European dry-liner and "no-liner" designs, which operate without supplemental coolant additives(SCAs).
- Kixx AF Coolant is a coolant concentrate designed to be mixed with clean water. It is not a pre-diluted product. For optimum year-round protection a concentration of 50 percent solution of Kixx AF Coolant in water is recommended.
- Freezing and boiling protection provided by various concentrations of Kixx AF Coolant are as follows :

Amount of Kixx AF Coolant for Freezing Protection 8L Bolling Point		
Coolant in Water(vol.%)	Down to(°C)	Increase(°C)
60	-52	10
50	-37	8
40	-24	6
33	-18	5

* Should not be used at concentrations more than 67 percent or less than 33 percent

Performance Standard

- ASTM D 3306

Typical Properties

Test Item	Specific Gravity	Freezing point, °C		Boiling point, °C	Foaming, ml	Reserve alkalinity, ml	PH		Water, wt %
	Undiluted	30% vol% solution in water	50% vol% solution in water	Undiluted	30% vol% solution in water	Undiluted	30% vol% solution in water	Undiluted	
Specification	1.114 min	-14.5 max	-34.0 max	155 min	4 max	Report	7.0~11.0	5 max	
Typical Value	1.122	-15.7	-36.6	170	0	22.6	8.36	3.91	

* The above data may differ slightly from the actual value of the product within the range where there is no abnormality in product performance.



Kixx RA Coolant

Top Performance Radiator / Coolant

ASTM D 3306

Description

Kixx RA Coolant is a premium quality, ethylene glycol based amine-phosphate type coolant, which is pre-mixed with ionized water (80%). It is designed primarily to meet the corrosion protection requirements of late model car engines having significant amounts of aluminum in their construction. It is dyed a distinctive color for ready identification.

Customer Benefits

- Protects cooling systems from corrosion and deposits.
- Provides higher boiling point for protection against engine overheating.
- Prevents coolant freezing.
- Maximizes aluminum engine component life.
- Long service life.

Application

- Primarily recommended for late model passenger car and light commercial vehicle engines where enhanced protection of aluminum heat-rejecting surfaces is required. It can also be used in certain cast iron, heavy-duty diesel engines, which operate without supplemental coolant additives(SCAs).
- Kixx RA Coolant is a pre-diluted coolant with clean water. Its freezing point is about -8°C, boiling point increases about 3°C.

Performance Standard

- ASTM D 3306
- KS M 2142
- JIS K2234

Typical Properties

Test Item	Specific Gravity	Freezing point	Boiling point	Foaming	PH
	Undiluted	°C	°C	ml	Undiluted
Specification	1.020~1.028	-7 max	100 min	10 max	6.0~11.
Typical Value	1.028	-8.1	103	0	8.24

* The above data may differ slightly from the actual value of the product within the range where there is no abnormality in product performance.



Kixx Engine Clean

Top Performance Engine Flushing Oil

Description

Kixx Engine Clean, highly effective engine flushing oil is intended for clearing the buttered system of carbonaceous and varnish adjournment of gasoline and diesel engines of all types and also mechanical transmissions and allowing transition to oils with higher operational properties. It is recommended for use at transition from mineral oils to semi synthetic and synthetic oils.

Flushing Steps

- Drain old engine oil from system, having to have the used buttered filter in place.
- Then fill oil system with engine flush oil (no less than 75 % from necessary volume of oil in the engine).
- Start the engine and allow it to work idly in a current for 20 minutes.
- Then drain engine flush oil from system, change the oil filter and fill in with new engine oil.

Application

- Restores mobility of piston rings.
- Prevents blocking of hydrojacks and eliminates their knock.
- In the course of washing oil channels, other knots of the engine are cleared of harmful adjournment formed while in service.
- Application is recommended at each replacement of oil.

Typical Properties

ISO VG Grade	Density	Kinematic Viscosity		Viscosity Index	Pour Point	Flash Point
	kg/L @15°C	mm²/s @40°C	mm²/s @100°C		°C	°C
32	0.8535	30.19	5.4	114	-15	288

* The above data may differ slightly from the actual value of the product within the range where there is no abnormality in product performance.



Description

Kixx Brake is a premium, non-petroleum automotive brake fluid, designed for use in a wide range of conventional hydraulic brake and clutch systems in severe service conditions or where DOT fluids are recommended.

Customer Benefits

Excellent braking response

Low volatility minimizes vapor formation over a wide temperature range, ensuring good braking performance and providing an additional margin of safety against vapor lock under more severe service conditions.

Reliable operation in severe service

High thermal and oxidation stability provides resistance to fluid degeneration and formation of harmful deposits, even under severe service conditions.

Saves on maintenance

Compatible with all metallic, plastic and elastomer components, providing continuous corrosion protection and lubrication throughout the brake/clutch system.

Reduces inventory costs

Widespread suitability for different motor vehicles as it may be used in systems designed for DOT 3, DOT 4.

Performance Standard

- **DOT-3** : FMVSS No. 116 DOT 3, SAE J1703, ISO 4925
- **DOT-4** : U.S. Federal Motor Vehicle Safety Standard (FMVSS) No. 116 DOT 4, SAE J1704, ISO 4925

Kixx Brake

Top Performance Automotive Brake Fluid

DOT 3, DOT 4

Typical Properties

FMVSS Grade	Specific Gravity	Equilibrium Reflux Boiling	Wet Equilibrium Reflux Boiling	Kinematic Viscosity		PH
		°C	°C	cSt @ 40°C	cSt @ 100°C	
DOT 3	1.07	234	151	1225	2.8	9.58
DOT 4	1.1	258	163	1073	2.1	8.64

* The above data may differ slightly from the actual value of the product within the range where there is no abnormality in product performance.



Kixx Lubricating the Future

06 Hydraulic Fluid

Kixx RD BIO

Kixx Hydro HVL

Kixx Hydro HVI

Kixx Hydro HVZ

Kixx Hydro HX

Kixx Hydro AF

Kixx Hydro XW

Kixx Hydro R&O

Kixx Hydro XZ





Kixx Lubricating
the Future

HYDRAULIC FLUID



Kixx RD BIO

Fully Synthetic, Biodegradable Hydraulic Fluid

ISO VG 46

Fluid Miscibility

Kixx RD BIO is miscible with general hydraulic oils formulated using mineral base oils. However, hydraulic devices in which Kixx maintain excellent environmental properties and performances.

Seal Compatibility

Kixx RD BIO is compatible with HNBR (Hydrogenated Nitrile Butadiene Rubber), NBR 1 (Acrylonitrile Butadiene Rubber) and FKM 2 (Fluoroelastomer).

TEST STANDARD: ISO 6072

Material	Test Temperature °C	Degradation Time hour	Change in Shore A Hardness grade	Change in Volume %	Change in Elongation %	Change in Tensile Strength %
HNBR	80	1000	-2.9	5.7	1	9
NBR1	80	1000	-3.3	7.7	-17	3
FKM2	80	1000	-4.0	0.1	-1	13
AU	80	1000	-2.3	-1.0	-25	-64

Typical Properties

ISO VG	Density	KV40	KV100	Viscosity Index	Flash Point	Pour Point	Rust Prevention	Copper Corrosion	Base Oil
	kg/L @ 15°C	mm ² /s @ 40°C	mm ² /s @ 100°C		°C	°C			
46	0.854	46.4	8.0	145	232	-45	Pass	1a	100% PAO/POE Synthetic

* The above data may differ slightly from the actual value of the product within the range where there is no abnormality in product performance.

Description

Kixx RD BIO is an advanced biodegradable hydraulic fluid which shows high performance above ISO 15380 HEES specification. It is readily biodegradable with a low level of ecotoxicity and bioaccumulation, so that the use for hydraulic devices operated in environmentally sensitive area is particularly suited. Fully synthetic esters, blended with state-of-the-art ashless additives, provide Kixx RD BIO with outstanding lubrication performance.

Features & Benefits

High eco-friendliness

The content of bio-based carbon is very high at 82% (test standard: ASTM D6866). Ecotoxicity and bioaccumulation are very low, and biodegradability is high, so even in case of external leakage due to an accident, the impact on the environment is low.

Excellent viscosity retention ability

By applying high-performance base fluid, viscosity changes due to temperature changes are effectively suppressed and viscosity reduction is minimized even under conditions where high shear stress is applied.

Excellent low temperature fluidity

Assists in ensuring stable performance of hydraulic devices operating in extremely cold or extremely low temperature environments.

Good wear resistance

Prevents physical damage to hydraulic elements operating under severe conditions.

Excellent thermal stability

Effectively suppresses damage to base fluid and additives even under high temperature and high pressure operating conditions, minimizing the occurrence of sludge and varnish.

Application

- Hydraulic equipment operating in environments where hydraulic fluid leakage can cause fatal pollution, such as rivers, forests, and ports
- Medium and heavy construction equipments, agricultural machinery, industrial vehicles, etc.
- Hydraulic equipment used in conditions with a wide operating temperature range and rapid changes Equipment for which the following "performance standards" hydraulic fluid is recommended

Performance Standard

Kixx RD BIO obtains the following approval.

- EU Ecolabel biodegradable hydraulic fluid

Kixx RD BIO meets the following performance specifications.

- ISO 15380 HEES
- US EPA (Environmental Protection Agency) 2013 VGP (Vessel General Permit)



Kixx Hydro HVL

Premium Long-Life Hydraulic Fluid for Heavy Construction Equipment

ISO VG 46

Description

Kixx Hydro HVL is a premium long-life hydraulic fluid which satisfies various specifications related to high-VI anti-wear hydraulic fluids such as ISO 11158 HV, DIN 51524 Part III HVLP, and so on. Kixx Hydro HVL, optimized for heavy construction equipment hydraulic devices, effectively suppresses sludge and varnish, which are fatal to the operational reliability of main control valves, based on excellent oxidation stability and thermal stability. Kixx Hydro HVL is a long-life product that can be used for up to 5,000 hours after charging in medium and large excavators.

Features & Benefits

Excellent viscosity retention ability

By applying a high-performance viscosity index improver, viscosity changes due to temperature changes are effectively suppressed. In addition, damage to the viscosity index improver is prevented even under conditions where high shear stress is applied, thereby minimizing viscosity reduction.

Excellent oxidation stability

Maximizes replacement cycle by minimizing degradation of properties and performance due to oxidation of hydraulic fluid.

Excellent low temperature fluidity

Helps hydraulic devices perform reliably even in extremely low temperature conditions based on fluidity.

Good wear resistance

Prevents physical damage to hydraulic elements operating under severe conditions.

Excellent corrosion and rust prevention

Prevents chemical damage to hydraulic elements under various operating conditions.

Excellent thermal stability

Effectively suppresses damage to base fluid and additives even under high temperature and high pressure operating conditions, minimizing the occurrence of sludge and varnish.

Application

- Medium and heavy excavators
- Medium and heavy construction equipments
- Hydraulic devices that operate in environments where it is not easy to replace hydraulic fluid
- Equipment for which the following "performance standards" hydraulic fluid is recommended

Performance Standard

Kixx Hydro HVL meets the following performance specifications.

- ISO 11158 HV
- DIN 51524 Part III HVLP
- GB 11118.1-2011, L-HV
- Bosch Rexroth RDE 90235
- Parker Denison TP30560 HF-0, HF-1, HF-2
- Fives Cincinnati Machine P70
- JCMAS P041 HK Low Temperature
- Eaton E-FDGN-TB002-E

Typical Properties

ISO VG	Density	KV40	KV100	Viscosity Index	Flash Point	Pour Point	Rust Prevention	Copper Corrosion	Base Oil
	kg/L @ 15°C	mm ² /s @40°C	mm ² /s @100°C		°C	°C			
46	0.854	46.4	8.1	145	232	-45	Pass	1a	100% VHVI Gr III Base Oil

* The above data may differ slightly from the actual value of the product within the range where there is no abnormality in product performance.



Kixx Hydro HVI

Premium High-VI Anti-Wear Hydraulic Fluid Optimized for Excavators

ISO VG 46

Description

Kixx Hydro HVI is a premium high-VI (Viscosity Index) anti-wear hydraulic fluid which satisfies various specifications related to high-VI anti-wear hydraulic fluids such as ISO 11158 HV, DIN 51524 Part III HVLP, and so on. Kixx Hydro HVI, optimized for hydraulic devices of excavators, helps excavators perform stably for a long time with its excellent viscosity retention ability and outstanding anti-foam and air release abilities.

Features & Benefits

Excellent viscosity retention ability

By applying a high-performance viscosity index improver, viscosity changes due to temperature changes are effectively suppressed. In addition, damage to the viscosity index improver is prevented even under conditions where high shear stress is applied, thereby minimizing viscosity reduction.

Excellent anti-foam and air release abilities

Prevents damage to hydraulic elements due to cavitation by quickly discharging and removing air bubbles generated within hydraulic device.

Excellent low temperature fluidity

Helps hydraulic devices perform reliably even in extremely low temperature conditions based on fluidity.

Good wear resistance

Prevents physical damage to hydraulic elements operating under severe conditions.

Excellent corrosion and rust prevention

Prevents chemical damage to hydraulic elements under various operating conditions.

Excellent thermal stability

Effectively suppresses damage to base fluid and additives even under high temperature and high pressure operating conditions, minimizing the occurrence of sludge and varnish.

Application

- Medium and heavy excavators
- Medium and heavy construction equipments
- Equipment for which the following "performance standards" hydraulic fluid is recommended

Performance Standard

Kixx Hydro HVI meets the following performance specifications.

- ISO 11158 HV
- DIN 51524 Part III HVLP
- GB 11118.1-2011, L-HV
- Bosch Rexroth RDE 90235
- Parker Denison TP30560 HF-0, HF-1, HF-2
- Fives Cincinnati Machine P70
- JCMAS P041 HK Low Temperature
- Eaton E-FDGN-TB002-E

Typical Properties

ISO VG	Density	KV40	KV100	Viscosity Index	Flash Point	Pour Point	Rust Prevention	Copper Corrosion	Base Oil
	kg/L @ 15°C	mm ² /s @40°C	mm ² /s @100°C		°C	°C			
46	0.8592	44.67	8.082	156	226	-45	Pass	1a	Synthetic Technology

* The above data may differ slightly from the actual value of the product within the range where there is no abnormality in product performance.



Kixx Hydro HVZ

Premium High-VI Anti-Wear Hydraulic Fluid

ISO VG 15, 22, 32, 46, 68, 100

Description

Kixx Hydro HVZ is a premium high-VI (Viscosity Index) anti-wear hydraulic fluid which satisfies various specifications related to high-VI anti-wear hydraulic fluids such as ISO 11158 HV, DIN 51524 Part III HVLVP, and so on. Recommended for use in industrial vehicles and hydraulic devices, Kixx Hydro HVZ helps hydraulic devices achieve optimal performance, especially in external environments with extreme temperature changes or variable operating conditions.

Features & Benefits

Excellent viscosity retention ability

By applying a high-performance viscosity index improver, viscosity changes due to temperature changes are effectively suppressed. In addition, damage to the viscosity index improver is prevented even under high-load conditions where high shear stress is applied, thereby minimizing viscosity reduction.

Excellent low temperature fluidity

Helps hydraulic devices perform reliably even in extremely low temperature conditions based on fluidity.

Good wear resistance

Prevents physical damage to hydraulic elements operating under severe conditions.

Excellent corrosion and rust prevention

Prevents chemical damage to hydraulic elements under various operating conditions.

Excellent thermal stability

Effectively suppresses damage to base fluid and additives even under high temperature and high pressure operating conditions, minimizing the occurrence of sludge and varnish.

Application

- Hydraulic devices in which the use of high-VI hydraulic fluid containing anti-wear additives is recommended
- Marine deck equipment, steering gear, bow propeller, etc.
- Reducer operating under mild load conditions
- Industrial vehicles such as forklifts and ladder trucks and so on
- Equipment for which the following "performance standards" hydraulic fluid is recommended

Performance Standard

Kixx Hydro HVZ meets the following performance specifications.

- ISO 11158 HV(VG 15, 22, 32, 46, 68, 100)
- DIN 51524 Part III HVLVP(VG 15, 22, 32, 46, 68, 100)
- GB 11118.1-2011, L-HV(VG 15, 22, 32, 46, 68, 100)
- Bosch Rexroth RDE 90235(VG 32, 46, 68)
- Parker Denison TP30560 HF-0, HF-1, HF-2(VG 32, 46, 68)
- Fives Cincinnati Machine P68(VG 32), P70(VG 46), P69(VG 68)
- JCMAS P041 HK Low Temperature(VG 32, 46)
- Eaton E-FDGN-TB002-E(VG 32, 46, 68)

Typical Properties

ISO VG	Density	KV40	KV100	Viscosity Index	Flash Point °C	Pour Point °C	Rust Prevention	Copper Corrosion	Base Oil
	kg/L@15°C	mm ² /s @40°C	mm ² /s @100°C						
15	0.8390	15.16	3.926	164	178	-48	Pass	1a	VHVI Gr III Blended Base Oil
22	0.8394	22.44	5.166	171	206	-45	Pass	1a	VHVI Gr III Blended Base Oil
32	0.8493	31.36	6.319	158	218	-45	Pass	1a	VHVI Gr III Blended Base Oil
46	0.8594	45.43	8.140	154	222	-42	Pass	1a	Synthetic Technology
68	0.8659	69.13	11.17	154	233	-42	Pass	1a	Synthetic Technology
100	0.8708	103.2	14.51	145	245	-39	Pass	1a	Synthetic Technology

* The above data may differ slightly from the actual value of the product within the range where there is no abnormality in product performance.



Kixx Hydro HX

High-Flash Point, Long-Life Anti-Wear Hydraulic Fluid

ISO VG 46

Description

Kixx Hydro HX is a high-flash point, long-life anti-wear hydraulic fluid which satisfies various specifications related to anti-wear hydraulic fluids such as ISO 11158 HM, DIN 51524 Part II HLP, and so on. Based on GS Caltex's technological powers accumulated through many years of hydraulic fluid business, Kixx Hydro HX is produced by optimally combining high-quality base fluids and additives. It is a product developed to be filled in hydraulic devices that require wear-resistant hydraulic oil with a flash point exceeding 250°C and to enable long-term use.

Features & Benefits

Strict flash point management

Manufactured to have a flash point exceeding 250 °C.

Excellent oxidation stability

Maximizes replacement cycle by minimizing degradation of properties and performance due to oxidation of hydraulic fluid.

Good wear resistance

Prevents physical damage to hydraulic elements operating under severe conditions.

Excellent corrosion and rust prevention

Prevents chemical damage to hydraulic elements under various operating conditions.

Excellent thermal stability

Effectively suppresses damage to base fluid and additives even under high temperature and high pressure operating conditions, minimizing the occurrence of sludge and varnish.

Application

- Hydraulic devices in which the use of high flash point hydraulic fluid containing anti-wear additives is recommended
- Plastic injection molding machine
- Reducer operating under mild load conditions
- Equipment for which the following "performance standards" hydraulic fluid is recommended

Performance Standard

Kixx Hydro HX meets the following performance specifications.

- ISO 11158 HM
- ASTM D6158
- DIN 51524 Part II HLP
- GB 11118.1-2011, L-HM
- AIST 126, 127
- Parker Denison TP30560 HF-0, HF-1, HF-2
- Fives Cincinnati Machine P70
- GM Hydraulic Anti-Wear LH-04
- Bosch Rexroth RDE 90235
- JCMAS P041 HK Normal Temperature
- SAE MS 1004 HM

Typical Properties

ISO VG	Density	KV40	KV100	Viscosity Index	Flash Point °C	Pour Point °C	Rust Prevention	Copper Corrosion	Base Oil
	kg/L @ 15°C	mm ² /s @40°C	mm ² /s @100°C						
46	0.8530	48.30	7.634	124	253	-36	Pass	1a	VHVI Gr III Blended Base Oil

* The above data may differ slightly from the actual value of the product within the range where there is no abnormality in product performance.



Description

Kixx Hydro AF is an ash-free, high-performance anti-wear hydraulic fluid which satisfies various specifications related to anti-wear hydraulic fluids such as ISO 11158 HM, DIN 51524 Part II HLP, and so on. Kixx Hydro AF, whose excellent quality has been proven for decades in Korean steel mills, contributes to increased productivity by improving the operational reliability and durability of hydraulic equipment that operates for long periods of time under high-temperature conditions.

Features & Benefits

Good wear resistance

Prevents physical damage to hydraulic elements operating under severe conditions.

Excellent corrosion and rust prevention

Prevents chemical damage to hydraulic elements under various operating conditions.

Excellent thermal stability

Effectively suppresses damage to base fluid and additives even under high temperature and high pressure operating conditions, minimizing the occurrence of sludge and varnish. Excellent ability to suppress ash generation that can be caused by damage to additives, especially those containing metal elements.

Application

- Hydraulic devices in which the use of ash-free hydraulic fluid containing anti-wear additives is recommended
- Plastic injection molding machine
- Reducer operating under mild load conditions
- Equipment for which the following "performance standards" hydraulic fluid is recommended

Performance Standard

Kixx Hydro AF meets the following performance specifications.

- ISO 11158 HM(VG 32, 46, 68)
- ASTM D6158(VG 32, 46, 68)
- DIN 51524 Part II HLP(VG 32, 46, 68)
- GB 11118.1-2011, L-HM(VG 32, 46, 68)
- GM Hydraulic Anti-Wear(VG 32, 46, 68)
- SAE MS 1004 HM(VG 32, 46, 68)
- AIST 126, 127(VG 32, 46, 68)
- Fives Cincinnati Machine P68(VG 32), P70(VG 46), P69(VG 68)

Kixx Hydro AF

Ash-Free, High-Performance Anti-Wear

ISO VG 32, 46, 68

Typical Properties

ISO VG	Density	KV40	KV100	Viscosity Index	Flash Point	Pour Point	Rust Prevention	Copper Corrosion	Base Oil
	kg/L@15°C	mm ² /s @40°C	mm ² /s @100°C		°C	°C			
32	0.8450	31.51	5.765	127	237	-39	Pass	1a	100% VHVI Gr III Base Oil
46	0.8520	45.71	7.312	122	240	-36	Pass	1a	100% VHVI Gr III Base Oil
68	0.8610	66.95	9.122	112	245	-36	Pass	1a	VHVI Gr III Blended Base Oil

* The above data may differ slightly from the actual value of the product within the range where there is no abnormality in product performance.



Description

Kixx Hydro XW is a high-performance anti-wear hydraulic fluid which satisfies various specifications related to anti-wear hydraulic fluids such as ISO 11158 HM, DIN 51524 Part II HLP, and so on. Recommended for use in industrial vehicles and hydraulic equipment, Kixx Hydro XW delivers optimal performance based on particularly excellent wear resistance and thermal stability.

Features & Benefits

Good wear resistance

Prevents physical damage to hydraulic elements operating under severe conditions.

Excellent corrosion and rust prevention

Prevents chemical damage to hydraulic elements under various operating conditions.

Excellent thermal stability

Effectively suppresses damage to base fluid and additives even under high temperature and high pressure operating conditions, minimizing the occurrence of sludge and varnish.

Application

- Hydraulic devices in which the use of hydraulic fluid containing anti-wear additives is recommended
- Plastic injection molding machine
- Reducer operating under mild load conditions
- Industrial vehicles such as forklifts and ladder trucks and so on
- Equipment for which the following "performance standards" hydraulic fluid is recommended

Performance Standard

Kixx Hydro XW obtains the following turbine maker's approvals.

- Bosch Rexroth RDE 90235(VG 32, 46, 68)
- Eaton E-FDGN-TB002-E(VG 32, 46)

Kixx Hydro XW meets the following performance specifications.

- ISO 11158 HM(VG 22, 32, 46, 68, 100, 150)
- ASTM D6158(VG 22, 32, 46, 68, 100, 150)
- DIN 51524 Part II HLP(VG 22, 32, 46, 68, 100, 150)
- GB 11118.1-2011, L-HM(VG 22, 32, 46, 68, 100, 150)
- GM Hydraulic Anti-Wear(VG 22, 32, 46, 68)
- SAE MS 1004 HM(VG 22, 32, 46, 68, 100)
- AIST 126, 127(VG 32, 46, 68)
- Parker Denison TP30560 HF-0, HF-1, HF-2(VG 32, 46, 68)
- Fives Cincinnati Machine P68(VG 32), P70(VG 46), P69(VG 68)
- JCMAS P041 HK Normal Temperature(VG 32, 46)

Kixx Hydro XW

High-Performance Anti-Wear Hydraulic Fluid

ISO VG 22, 32, 46, 68, 100, 150, 220, 320

Typical Properties

ISO VG	Density	KV40	KV100	Viscosity Index	Flash Point	Pour Point	Rust Prevention	Copper Corrosion	Base Oil
	kg/L@15°C	mm ² /s @40°C	mm ² /s @100°C		°C	°C			
22	0.8383	21.96	4.489	117	220	-42	Pass	1a	VHVI Gr III Blended Base Oil
32	0.8537	31.03	5.526	116	234	-39	Pass	1a	Synthetic Technology
46	0.8599	46.14	7.152	114	236	-39	Pass	1a	Synthetic Technology
68	0.8658	68.32	9.182	114	239	-36	Pass	1a	Synthetic Technology
100	0.8723	100.3	11.64	104	242	-36	Pass	1a	Synthetic Technology
150	0.8750	149.5	15.43	105	245	-33	Pass	1a	Synthetic Technology
220	0.8766	220.9	20.45	108	248	-33	Pass	1a	Synthetic Technology
320	0.8800	317.3	26.48	110	260	-30	Pass	1a	Synthetic Technology

* The above data may differ slightly from the actual value of the product within the range where there is no abnormality in product performance.



Description

Kixx Hydro R&O is a general purpose, rust & oxidation inhibition hydraulic fluid which satisfies various specifications related to rust & oxidation inhibition hydraulic fluids such as ISO 11158 HL, DIN 51524 Part I HL, and so on. Kixx Hydro R&O is effective in preventing corrosion and rust in various hydraulic equipment operating under light load conditions.

Features & Benefits

Excellent corrosion and rust prevention

Prevents chemical damage to hydraulic elements under various operating conditions.

Excellent oxidation stability

Maximizes replacement cycle by minimizing degradation of properties and performance due to oxidation of hydraulic fluid.

Application

- Hydraulic devices in which the use of rust & oxidation inhibition hydraulic fluid is recommended
- Reducer operating under light load conditions
- Equipment for which the following “performance standards” hydraulic fluid is recommended

Performance Standard

Kixx Hydro R&O meets the following performance specifications.

- ISO 11158 HL(VG 32, 46, 68)
- DIN 51524 Part I HL(VG 32, 46, 68)
- GB 11118.1-2011, L-HL(VG 32, 46, 68)

Kixx Hydro R&O

General Purpose, Rust & Oxidation Inhibition Hydraulic Fluid

ISO VG 32, 46, 68, 320

Typical Properties

ISO VG	Density	KV40	KV100	Viscosity Index	Flash Point	Pour Point	Rust Prevention	Copper Corrosion	Base Oil
	kg/L@15°C	mm ² /s @40°C	mm ² /s @100°C		°C	°C			
32	0.8540	32.35	5.606	113	235	-39	Pass	1a	Synthetic Technology
46	0.8600	46.02	7.061	112	240	-33	Pass	1a	Synthetic Technology
68	0.8666	67.85	9.024	108	244	-30	Pass	1a	Synthetic Technology
320	0.8800	332.3	26.67	106	262	-24	Pass	1a	Synthetic Technology

* The above data may differ slightly from the actual value of the product within the range where there is no abnormality in product performance.



Description

Kixx Hydro XZ is a premium high-VI(Viscosity Index) anti-wear hydraulic fluid which satisfies various specifications related to high-VI anti-wear hydraulic fluids such as ISO 11158 HV, DIN 51524 Part III HVL P, and so on. Based on GS Caltex's technological powers accumulated through many years of experience in the hydraulic fluid business, Kixx Hydro XZ is produced by optimally combining high-quality base fluids and additives. It has passed Bosch Rexroth's RFT-APU-CL test performed under severe operating conditions, and is a high-quality product that minimizes durability degradation of hydraulic devices even under extreme operating conditions.

Features & Benefits

Excellent viscosity retention ability

By applying a high-performance viscosity index improver, viscosity changes due to temperature changes are effectively suppressed. In addition, damage to the viscosity index improver is prevented even under conditions where high shear stress is applied, thereby minimizing viscosity reduction.

Excellent low temperature fluidity

Helps hydraulic devices perform reliably even in extremely low temperature conditions based on fluidity.

Good wear resistance

Prevents physical damage to hydraulic elements operating under severe conditions.

Excellent corrosion and rust prevention

Prevents chemical damage to hydraulic elements under various operating conditions.

Excellent thermal stability

Effectively suppresses damage to base fluid and additives even under high temperature and high pressure operating conditions, minimizing the occurrence of sludge and varnish.

Application

- Hydraulic devices in which the use of high-VI hydraulic fluid containing anti-wear additives is recommended
- Medium and heavy excavators
- Medium and heavy construction equipments
- Plastic injection molding machine
- Reducer operating under mild load conditions
- Equipment for which the following “performance standards” hydraulic fluid is recommended

Performance Standard

Kixx Hydro XZ obtains the following turbine maker's approvals.

- Bosch Rexroth RDE 90235(VG 32, 46, 68)
- Eaton E-FDGN-TB002-E(VG 32, 46, 68)

Kixx Hydro XZ meets the following performance specifications.

- ISO 11158 HV(VG 32, 46, 68)
- DIN 51524 Part III HVL P(VG 32, 46, 68)
- GB 11118.1-2011, L-HV(VG 32, 46, 68)
- Parker Denison TP30560 HF-0, HF-1, HF-2(VG 32, 46, 68)
- Fives Cincinnati Machine P68(VG 32), P70(VG 46), P69(VG 68)
- JCMAS P041 HK Low Temperature(VG 32, 46)

Kixx Hydro XZ

Premium High-VI Anti-Wear Hydraulic Fluid

ISO VG 32, 46, 68, 320

Typical Properties

ISO VG	Density	KV40	KV100	Viscosity Index	Flash Point	Pour Point	Rust Prevention	Copper Corrosion	Base Oil
	kg/L@15°C	mm ² /s @40°C	mm ² /s @100°C		°C	°C			
32	0.850	31.8	6.4	156	224	-51	Pass	1a	VHVI Gr III Blended Base Oil
46	0.860	46.0	8.3	157	240	-45	Pass	1a	Synthetic Technology
68	0.866	68.2	10.9	150	252	-42	Pass	1a	Synthetic Technology

* The above data may differ slightly from the actual value of the product within the range where there is no abnormality in product performance.

07

Industrial Oil

Kixx Gear EP S Wind

Kixx Gear EP S

Kixx Gear EP

Kixx Gear EP ROLL

Kixx Turbine Premium

Kixx Turbine EP FP

Kixx Turbine EP

Kixx Turbine GT

Kixx Turbine

Kixx Turbine R&O PHS

Kixx Turbine R&O

Kixx Compressor P

Kixx Compressor S

Kixx Way Lube

Kixx Spindle

Kixx Rockdrill

Kixx Therm

Kixx Trans I

Kixx Process

Kixx RF P 85

Kixx RF P 85x

Kixx Chain BIO

Kixx Immersion Fluid S





Description

Kixx Gear EP S Wind is advanced synthetic industrial gear oil using state of the art technology for Wind Power generation application. It offers outstanding lubrication under extreme operating conditions of Wind power generation equipment; helps reducing friction and provides longer service life. High resistance to micro-pitting for optimal gear protection

Features & Benefits

- Minimize surface friction and wear of gears and bearings by forming a strong and stable lubricating film even under high temperature and extreme pressure conditions of wind power generation components
- Prevent energy loss by preventing viscosity increase at normal operating temperature with excellent antioxidant capability
- Excellent oxidation stability and thermal safety for long-term oil use

Application

- Hydraulic devices in which the use of ash-free hydraulic fluid containing anti-wear additives is recommended
- Plastic injection molding machine
- Reducer operating under mild load conditions
- Equipment for which the following "performance standards" hydraulic fluid is recommended

Performance Standard

- AGMA 9005-E02 [EP]
- U.S. Steel 224
- David Brown Table E S1.53.101
- DIN 51517 Part 3
- Cincinnati Machine P-74

Kixx Gear EP S Wind

Synthetic Industrial Gear Oil for Wind Power Application

ISO VG 320

Typical Properties

ISO Viscosity	AGMA Grade	Density	KV40	KV100	Viscosity Index	Flash Point	Pour Point
		kg/L@15°C	mm ² /s @40°C	mm ² /s @100°C		°C	°C
320	320	0.861	313.4	40.77	184	260	-42

* The above data may differ slightly from the actual value of the product within the range where there is no abnormality in product performance.



Description

Kixx Gear EP S is PAO based advanced synthetic heavy duty industrial gear oil. It offers outstanding lubrication under severe operating conditions, help reducing friction and provides longer service life. High resistance to micro-pitting for optimal gear protection.

Features & Benefits

- Excellent Gear Wear & Corrosion protection
- Longer Oil life, reduced maintenance
- Energy Saving – reduced operating costs
- Protects against rust and corrosion.

Application

- Recommended for many types of enclosed gear boxes especially those running continuously at temperatures up to 120°C or exposed to very low temperatures.
- Suitable for severe service conditions such as heavy loads and low speeds.
- Particularly recommended for certain systems where extra long oil life is required such as wind turbines or systems which are inaccessible or require infrequent lubrication.

Performance Standard

- FLENDER-Gear-Units Revision 16
- AGMA 9005-E02 [EP]
- U.S. Steel 224
- David Brown Table E S1.53.101
- DIN 51517 Part 3
- Cincinnati Machine P-74

Kixx Gear EP S

Extreme Pressure Synthetic Industrial Gear Oil

ISO VG 150, 220, 320

Typical Properties

ISO Viscosity	AGMA Grade	Density	KV40	KV100	Viscosity Index	Flash Point	Pour Point	Base Oil
		kg/L@15°C	mm ² /s @40°C	mm ² /s @100°C		°C	°C	
150	4EP	0.855	138.8	20.04	166	250	-49	100% PAO Synthetic
220	5EP	0.858	222.6	30.6	177	258	-47	100% PAO Synthetic
320	6EP	0.860	317.4	41.61	187	262	-41	100% PAO Synthetic

* The above data may differ slightly from the actual value of the product within the range where there is no abnormality in product performance.



Description

Kixx Gear EP is a high-performance industrial gear oil with the DIN 51517 Part 3 CLP specification. Recommended for industrial gears and vehicle equipment that require extreme pressure, the Kixx Gear EP is particularly optimized for oxidation stability, water separation, and extreme pressure characteristics

Features & Benefits

- Protection of gears from impact load and central load due to excellent extreme pressure and wear resistance.
- Maintain an efficient lubrication system with high thermal stability by minimizing varnish formation to gears or bearing surfaces.
- Excellent oxidation stability prevents viscosity increase at normal operating temperature to prevent energy loss.
- Minimize wear and maintain power transmission efficiency by forming a strong, long-lasting lubricating film.
- It is very anti-rust and anti-corrosion, so it does not cause corrosion to steel, copper, bronze, cadmium and nickel materials.
- It has excellent water separation properties, so moisture is quickly separated even when water is mixed.
- Excellent oxidation stability and thermal stability to extend the replacement period of oil

Application

- All types of industrial gears and vehicle equipment that require extreme pressure
- Closed gear, chain drive, sprocket, plain and rolling element bearings, slide guides, flexible coupling, etc
- Sealed gears and reducers used in large high-horsepower devices such as low-load gearboxes to rolling mill and cement, and mining hoists

Performance Standard

- DIN 51517 Part 3 CLP (ISO VG 68~680)
- AGMA 250.04, AGMA251.02, U.S. Steel 224, David Brown Table E
- ANSI/AGMA 9005-E02 (EP)
- U.S. Steel 224(ISO VG 68~320)
- David Brown Table E approved (ISO VG 68~680)
- Sumitomo Heavy Industries approved (SHI-MH / SHI-PE / SHI-HMX)

Kixx Gear EP

Extreme Pressure Industrial Gear Oil

ISO VG 320

Typical Properties

ISO Viscosity	AGMA Grade	Density	KV40	KV100	Viscosity Index	Flash Point	Pour Point	Base Oil
		kg/L@15°C	mm ² /s @40°C	mm ² /s @100°C		°C	°C	
68	2EP	0.867	67	8.9	111	204	-20	Premium Base Oil
100	3EP	0.873	99.5	11.3	105	204	-23	Premium Base Oil
150	4EP	0.876	148	15.5	112	204	-20	Premium Base Oil
220	5EP	0.878	219	19.7	105	216	-20	Premium Base Oil
320	6EP	0.882	317	26.1	108	221	-20	Premium Base Oil
460	7EP	0.885	461	34.1	110	224	-22	Premium Base Oil
680	8EP	0.889	681	44.7	111	227	-23	Premium Base Oil
1000	8A Comp	0.891	1050	60.3	113	238	-22	Premium Base Oil

* The above data may differ slightly from the actual value of the product within the range where there is no abnormality in product performance.



Description

Kixx EP Roll is a high-performance industrial gear oil with the DIN 51517 Part 3 CLP specification and is recommended for industrial gears and vehicle equipment that require extreme pressure. The Kixx EP Roll is optimized for oxidation stability, water separation, and extreme pressure characteristics, and has a higher viscosity index compared to general mineral oil gear oil, which can be driven even in low temperature environments.

Features & Benefits

- Minimize attachments to gear or bearing surfaces by maintaining a stable lubrication system against extreme pressure even in high temperature environments
- Excellent equipment protection

High pressure and wear resistance protect gears from impact load and central load High thermal stability minimizes attachments to gears or bearing surfaces to maintain efficient lubrication systems Prevent energy loss by preventing viscosity increase at normal operating temperature with excellent antioxidant capability Minimize wear and maintain power transmission efficiency by forming a strong, long-lasting oil film Highly anti-rust and anti-corrosion capabilities do not cause corrosion to steel, copper, bronze and nickel materials

Application

- All types of industrial gears and vehicle equipment that require extreme pressure
- Devices operated in a closed gear unit at least 80°C or in a low temperature environment, etc
- Chain drives, sprockets, plain and rolling element bearings, slide guides, flexible coupling, etc

Performance Standard

- GMA 90054-E02 (EP)
- U.S. Steel 224
- David Brown Table E S1.53.101
- DIN 51517 Part 3

Kixx Gear EP Roll

Extreme Pressure Industrial Gear Oil

ISO VG 220

Typical Properties

ISO Viscosity	AGMA Grade	Density	KV40	KV100	Viscosity Index	Flash Point	Pour Point	Base Oil
		kg/L@15°C	mm ² /s @40°C	mm ² /s @100°C		°C	°C	
220	5EP	0.882	232	23.9	134	236	-33	Synthetic Technology

* The above data may differ slightly from the actual value of the product within the range where there is no abnormality in product performance.



Kixx Turbine Premium

Premium, High-Performance Gas Turbine Oil

ISO VG 32

Description

Kixx Turbine Premium is a premium, high-performance gas turbine oil that satisfies the standards of many turbine makers. In particular, Kixx Turbine Premium has acquired MHPS MS04-MA-CL005 (R-4) approval, one of the turbine oil standards for MITSUBISHI POWER (formerly MITSUBISHI HITACHI POWER SYSTEMS) gas turbines that requires the use of turbine oil with the highest level of properties and performance, making it suitable for use in high-performance gas turbines operating under extremely severe conditions. Made with high-quality base fluid and state-of-the-art anti-oxidation technology, Kixx Turbine Premium helps gas turbines operate under various conditions to achieve optimal performance.

Features & Benefits

Excellent oxidation stability

Effectively inhibits oxidation of base fluid even under extreme operating conditions, maintaining properties at a similar level to the initial level for a long period of time.

Excellent thermal stability

Effectively suppresses damage to base fluid and additives even under extreme operating conditions, minimizing the occurrence of sludge and varnish.

Excellent air release capability

Minimizes rupture of the lubricating film of the main shaft sliding bearing and damage to the lubricating oil circulation pump.

Excellent water separation ability

Effectively suppresses the occurrence of rust and corrosion caused by water molecules entering the turbine's lubrication system.

Application

- Medium and large gas turbines operating under extremely severe conditions
- Various turbomachines operating under extremely severe conditions
- Machinery and lubrication systems that experience problems due to sludge and varnish generation under high temperature conditions
- Machinery and lubrication systems in which the use of turbine oils of the following "performance standards" is recommended

Performance Standard

Kixx Turbine Premium obtains the following turbine maker's approval.

- MHPS MS04-MA-CL005 (R-4)

Kixx Turbine Premium meets the following performance specifications(Self-Claim).

- DIN 51524 Part I, II
- AIST Turbine Standard 120, 125
- BS 489: 1999
- SEB 181229-1, 2
- GB 11120-2011 L-TSA, L-TGA, L-TGSB
- ASTM D4304
- ISO 8068 L-TSA, L-TGA, L-TGSB
- Siemens TLV 9013 04(non-EP) TLV 9013 05(non-EP)
- GE Power GEK 121608(without Gear Box), HTGD 90117, 32568J, 107395A, 46506E, 28143 Light E

Typical Properties

ISO VG	Density	KV40	KV100	Viscosity Index	Flash Point	Pour Point	Rust Prevention	Copper Corrosion	TAN	RPVOT	Base Oil
	kg/L@15°C	mm ² /s @40°C	mm ² /s @100°C		°C	°C			mgKOH/g	minute	
32	0.844	30.6	5.6	125	242	-36	Pass	1a	0.06	>1500	100% VHVI Gr III Base Oil

* The above data may differ slightly from the actual value of the product within the range where there is no abnormality in product performance.



Kixx Turbine EP FP

High-Flash Point, High-Performance EP Turbine Oil

ISO VG 46

Description

Kixx Turbine EP FP is a high-flash point, EP(Extreme Pressure) turbine oil which meets various international and turbine maker's specifications. Based on the optimized formulation using high quality base fluid, ashless EP agents anti-oxidants, rust and corrosion inhibitors and anti-foamers, Kixx Turbine EP FP contributes to stable and efficient operation of various turbines (for electricity generation, manufacturing plant, large vessels, and so on), turbo compressors, general circulating and lubrication systems in machineries. In particular, Kixx Turbine EP FP will be the best solution for the case where the use of EP turbine oil whose flash point exceeds 250 °C must be applied as a lubricant.

Features & Benefits

Strict flash point management

Manufactured to have a flash point exceeding 250 °C.

Appropriate level of extreme pressure performance

Prevents physical damage to machine elements operating under high pressure conditions.

Good oxidation stability

Effectively suppresses oxidation of base fluid even under severe operating conditions, maintaining properties similar to the initial level for a long period of time.

Excellent air release capability

Minimizes rupture of the lubricating film of the main shaft sliding bearing and damage to the lubricating oil circulation pump.

Excellent water separation ability

Effectively suppresses the occurrence of rust and corrosion caused by water molecules entering the turbine's lubrication system.

Application

- Various mechanical devices requiring extreme pressure turbine oil with a flash point exceeding 250 °C
- Steam, gas and hydraulic turbines operating under high load conditions
- Various turbomachines operating under high load conditions
- Machinery and lubrication systems that experience problems due to sludge and varnish generation under high temperature conditions
- Machinery and lubrication systems in which the use of turbine oils of the following "performance standards" is recommended

Performance Standard

Kixx Turbine EP FP meets the following performance specifications(Self-Claim).

- DIN 51524 Part I, II
- AIST Turbine Standard 120, 125
- BS 489: 1999
- SEB 181229-1, 2
- GB 11120-2011 L-TSE, L-TGE
- ISO 8068 L-TSE, L-TGE
- GE Power GEK HTGD 90117
- MAN TED 10000494596
- Solar ES 0-224
- MAN TED 10000494596
- Siemens TLV 9013 04(with-EP) TLV 9013 05(with-EP)

Typical Properties

ISO VG	Density	KV40	KV100	Viscosity Index	Flash Point	Pour Point	Rust Prevention	Copper Corrosion	TAN	RPVOT	FZG A/8, 3/90	Base Oil
	kg/L@15°C	mm ² /s @40°C	mm ² /s @100°C		°C	°C			mgKOH/g	minute	Fail Load Stage	
46	0.850	47.8	7.6	124	262	-27	Pass	1a	0.19	>1500	9	VHVI Gr III Blended Base Oil

* The above data may differ slightly from the actual value of the product within the range where there is no abnormality in product performance.



Description

Kixx Turbine EP is a high performance EP(Extreme Pressure) turbine oil which meets various international and turbine maker's specifications. Based on the optimized formulation using high quality base fluid, ashless EP agents anti-oxidants, rust and corrosion inhibitors and antifoamers, Kixx Turbine EP contributes to stable and efficient operation of various turbines (for electricity generation, manufacturing plant, large vessels, and so on), turbo compressors, general circulating and lubrication systems in machineries. Especially, Kixx Turbine EP is applicable for various turbines and turbo compressors whose integrated lubrication systems for main shaft journal bearings and gear sets is designed to be operated by only one oil.

Features & Benefits

Appropriate level of extreme pressure performance

Prevents physical damage to machine elements operating under high pressure conditions.

Good oxidation stability

Effectively suppresses oxidation of base fluid even under severe operating conditions, maintaining properties similar to the initial level for a long period of time.

Excellent air release capability

Minimizes rupture of the lubricating film of the main shaft sliding bearing and damage to the lubricating oil circulation pump.

Excellent water separation ability

Effectively suppresses the occurrence of rust and corrosion caused by water molecules entering the turbine's lubrication system.

Application

- Various mechanical devices requiring extreme pressure turbine oil application
- Steam, gas and hydraulic turbines operating under high load conditions
- Various turbomachines operating under high load conditions
- Machinery and lubrication systems that experience problems due to sludge and varnish generation under high temperature conditions
- Machinery and lubrication systems in which the use of turbine oils of the following "performance standards" is recommended

Performance Standard

Kixx Turbine EP meets the following performance specifications(Self-Claim).

- DIN 51524 Part I, II
- AIST Turbine Standard 120, 125
- BS 489: 1999
- SEB 181229-1, 2
- GB 11120-2011 L-TSE, L-TGE
- ISO 8068 L-TSE, L-TGE
- GE Power GEK HTGD 90117
- MAN TED 10000494596
- Solar ES 0-224
- MAN TED 10000494596
- Siemens TLV 9013 04(with-EP)
- TLV 9013 05(with-EP)

Kixx Turbine EP

High-Performance Turbine Oil

ISO VG 32, 46

Typical Properties

ISO VG	Density	KV40	KV100	Viscosity Index	Flash Point	Pour Point	Rust Prevention	Copper Corrosion	TAN	RPVOT	FZG A/8, 3/90	Base Oil
	kg/L@15°C	mm ² /s @40°C	mm ² /s @100°C		°C	°C			mgKOH/g	minute	Fail Load Stage	
32	0.848	31.7	5.7	120	232	-24	Pass	1a	0.18	>1200	8	100% VHVI Gr III Base Oil
46	0.850	46.2	7.4	122	244	-21	Pass	1a	0.18	>1200	9	100% VHVI Gr III Base Oil

* The above data may differ slightly from the actual value of the product within the range where there is no abnormality in product performance.



Description

Kixx Turbine GT is a high-performance gas turbine oil which meets various international and turbine maker's specifications. Especially, Kixx Turbine GT obtains Mitsubishi Power(formerly, Mitsubishi Hitachi Power Systems)'s turbine oil approval which consists of higher requirements about properties and performance. Based on the optimized formulation using high quality base fluid and high-performance phenol-free anti-oxidation system, Kixx Turbine GT assures efficient and trouble-free operation of various gas turbines under moderate and severe conditions.

Features & Benefits

Excellent oxidation stability

Effectively suppresses oxidation of base fluid even under severe operating conditions, maintaining properties similar to the initial level for a long period of time. In addition, the application of phenol-free anti-oxidation technology prevents a sudden drop in anti-oxidation ability that may occur when loss occurs due to early volatilization of antioxidants under high-temperature conditions.

Excellent air release capability

Minimizes rupture of the lubricating film of the main shaft sliding bearing and damage to the lubricating oil circulation pump.

Excellent water separation ability

Effectively suppresses the occurrence of rust and corrosion caused by water molecules entering the turbine's lubrication system.

Application

- Medium and large gas turbines operating under extremely severe conditions
- Various turbomachines operating under extremely severe conditions
- Machinery and lubrication systems that experience problems due to sludge and varnish generation under high temperature conditions
- Machinery and lubrication systems in which the use of turbine oils of the following "performance standards" is recommended

Performance Standard

Kixx Turbine GT obtains the following turbine maker's approvals.

- MHPS MS04-MA-CL002 (R-4)
- Siemens TLV 9013 04(non-EP) TLV 9013 05(non-EP)

Kixx Turbine GT meets the following performance specifications(Self-Claim).

- DIN 51524 Part I, II
- AIST Turbine Standard 120, 125
- BS 489: 1999
- SEB 181229-1, 2
- GB 11120-2011 L-TSA, L-TGA, L-TGSB
- ASTM D4304
- ISO 8068 L-TSA, L-TGA, L-TGSB
- GE Power GEK 121608(without Gear Box), HTGD 90117, 32568J, 107395A, 46506E, 28143 Light E

Kixx Turbine GT

High-Performance Gas Turbine Oil

ISO VG 32

Typical Properties

ISO VG	Density	KV40	KV100	Viscosity Index	Flash Point	Pour Point	Rust Prevention	Copper Corrosion	TAN	RPVOT	Base Oil
	kg/L@15°C	mm ² /s @40°C	mm ² /s @100°C		°C	°C			mgKOH/g	minute	
32	0.845	31.3	5.7	125	240	-27	Pass	1a	0.08	>1200	100% VHVI Gr III Base Oil

* The above data may differ slightly from the actual value of the product within the range where there is no abnormality in product performance.



Description

Kixx Turbine is a high-performance turbine oil which meets various international and turbine maker's specifications. Based on the optimized formulation using high quality base oils, anti-oxidants, rust and corrosion inhibitors and anti-foamers, Kixx Turbine contributes to stable and efficient operation of various turbines (for electricity generation, manufacturing plant, large vessels, and so on), turbo compressors, general circulating and lubrication systems in machineries.

Features & Benefits

Good oxidation stability

Effectively suppresses oxidation of base fluid even under severe operating conditions, maintaining properties similar to the initial level for a long period of time.

Excellent air release capability

Minimizes rupture of the lubricating film of the main shaft sliding bearing and damage to the lubricating oil circulation pump.

Excellent water separation ability

Effectively suppresses the occurrence of rust and corrosion caused by water molecules entering the turbine's lubrication system.

Application

- Medium and large gas turbines operating under extremely severe conditions
- Various turbomachines operating under extremely severe conditions
- Machinery and lubrication systems that experience problems due to sludge and varnish generation under high temperature conditions
- Machinery and lubrication systems in which the use of turbine oils of the following "performance standards" is recommended

Performance Standard

Kixx Turbine obtains the following turbine maker's approvals.

- Siemens TLV 9013 04(non-EP) TLV 9013 05(non-EP)

Kixx Turbine meets the following performance specifications(Self-Claim).

- DIN 51524 Part I, II
- AIST Turbine Standard 120, 125
- BS 489: 1999
- SEB 181229-1, 2
- GB 11120-2011 L-TSA, L-TGA
- ASTM D4304
- ISO 8068 L-TSA, L-TGA
- GE Power GEK 121608(without Gear Box, VG32), HTGD 90117(VG32, 46, 68), 32568J(VG32), 107395A(VG32), 46506E(VG32), 28143 Light(VG32), 28143 Heavy(VG100)

Kixx Turbine

High-Performance Turbine Oil

ISO VG 32, 46, 68, 100

Typical Properties

ISO VG	Density	KV40	KV100	Viscosity Index	Flash Point	Pour Point	Rust Prevention	Copper Corrosion	TAN	RPVOT	Base Oil
	kg/L@15°C	mm ² /s @40°C	mm ² /s @100°C		°C	°C			mgKOH/g	minute	
32	0.845	31.3	5.7	125	232	-24	Pass	1a	0.08	>1000	100% VHVI Gr III Base Oil
46	0.852	45.7	7.3	121	238	-21	Pass	1a	0.07	>1000	100% VHVI Gr III Base Oil
68	0.862	68.2	9.3	113	244	-18	Pass	1a	0.07	>1000	VHVI Gr III Blended Base Oil
100	0.872	102.6	11.7	102	248	-18	Pass	1a	0.07	>1000	VHVI Gr III Blended Base Oil

* The above data may differ slightly from the actual value of the product within the range where there is no abnormality in product performance.



Description

Kixx Turbine R&O PHS is a high-cleanliness, high-performance turbine oil which meets various international and turbine maker's specifications. Based on the optimized formulation using high quality base fluid, anti-oxidants, rust and corrosion inhibitors and anti-foamers, Kixx Turbine R&O contributes to stable and operation of various turbines (for electricity generation, manufacturing plant, large vessels, and so on), turbo compressors, general circulating and lubrication systems in machineries. REGAL R&O PHS, which has strict contamination control technology applied, can also be used in precision machinery that requires the use of ultra-clean turbine oil of NAS grade 7 or lower.

Features & Benefits

Strict pollution control

It can also be applied to precision hydraulic devices that require the use of high-cleanliness hydraulic fluid of NAS grade 7 or lower.

Good oxidation stability

Effectively suppresses oxidation of base fluid even under severe operating conditions, maintaining properties similar to the initial level for a long period of time.

Excellent air release capability

Minimizes rupture of the lubricating film of the main shaft sliding bearing and damage to the lubricating oil circulation pump.

Excellent water separation ability

Effectively suppresses the occurrence of rust and corrosion caused by water molecules entering the turbine's lubrication system.

Application

- MVarious steam, gas and hydraulic turbines
- Various turbomachines
- Machinery and lubrication systems in which the use of turbine oils of the following "performance standards" is recommended

Performance Standard

Kixx Turbine R&O PHS meets the following performance specifications(Self-Claim).

- DIN 51524 Part I, II
- AIST Turbine Standard 120, 125
- BS 489: 1999
- SEB 181229-1, 2
- GB 11120-2011 L-TSA, L-TGA
- ASTM D4304
- ISO 8068 L-TSA, L-TGA
- GE Power GEK HTGD 90117(VG32, 46), 32568J(VG32), 107395A(VG32), 46506E(VG32), 28143 Light(VG32)
- Siemens TLV 9013 04(non-EP, VG32, 46) TLV 9013 05(non-EP, VG32, 46)

Kixx Turbine R&O PHS

High-Cleanliness, High-Performance Turbine Oil

ISO VG 32

Typical Properties

ISO VG	Density	KV40	KV100	Viscosity Index	Flash Point	Pour Point	Rust Prevention	Copper Corrosion	TAN	RPVOT	Base Oil
	kg/L@15°C	mm ² /s @40°C	mm ² /s @100°C		°C	°C			mgKOH/g	minute	
32	0.854	31.1	5.5	113	235	-21	Pass	1a	0.10	>800	Synthetic Technology

* The above data may differ slightly from the actual value of the product within the range where there is no abnormality in product performance.



Description

Kixx Turbine R&O is a high-performance turbine oil which meets various international and turbine maker's specifications. Based on the optimized formulation using high quality base fluid, anti-oxidants, rust and corrosion inhibitors and anti-foamers, Kixx Turbine R&O contributes to stable and operation of various turbines (for electricity generation, manufacturing plant, large vessels, and so on), turbo compressors, general circulating and lubrication systems in machineries.

Features & Benefits

Good oxidation stability

Effectively suppresses oxidation of base fluid even under severe operating conditions, maintaining properties similar to the initial level for a long period of time.

Excellent air release capability

Minimizes rupture of the lubricating film of the main shaft sliding bearing and damage to the lubricating oil circulation pump.

Excellent water separation ability

Effectively suppresses the occurrence of rust and corrosion caused by water molecules entering the turbine's lubrication system.

Application

- Various steam, gas and hydraulic turbines
- Various turbomachines
- Machinery and lubrication systems in which the use of turbine oils of the following "performance standards" is recommended

Performance Standard

Kixx Turbine R&O meets the following performance specifications(Self-Claim).

- DIN 51524 Part I, II
- AIST Turbine Standard 120, 125
- BS 489: 1999
- SEB 181229-1, 2
- GB 11120-2011 L-TSA, L-TGA
- ASTM D4304
- ISO 8068 L-TSA, L-TGA
- GE Power GEK HTGD 90117(VG32, 46), 32568J(VG32), 107395A(VG32), 46506E(VG32), 28143 Light(VG32), 28143 Heavy(VG100)
- Siemens TLV 9013 04(non-EP, VG32, 46) TLV 9013 05(non-EP, VG32, 46)

Kixx Turbine R&O

High-Performance Turbine Oil

ISO VG 32, 46, 68, 100

Typical Properties

ISO VG	Density	KV40	KV100	Viscosity Index	Flash Point	Pour Point	Rust Prevention	Copper Corrosion	TAN	RPVOT	Base Oil
	kg/L@15°C	mm ² /s @40°C	mm ² /s @100°C		°C	°C			mgKOH/g	minute	
32	0.855	32.4	5.7	115	236	-21	Pass	1a	0.09	>800	Synthetic Technology
46	0.861	46.3	7.1	112	242	-21	Pass	1a	0.08	>800	Synthetic Technology
100	0.871	100.1	11.6	103	248	-18	Pass	1a	0.09	>800	Synthetic Technology

* The above data may differ slightly from the actual value of the product within the range where there is no abnormality in product performance.



Description

Range of mineral compressor lubricants, meeting DIN 51 506 class VDL specifications and exhibiting high load carrying capacity. Kixx Compressor P are blended from selected high quality paraffinic base oils. A well balanced additive package provides excellent oxidation resistance, corrosion protection, and outstanding EP characteristics. It provides a smooth, economical compressor operation especially under severe conditions.

Features & Benefits

Oxidation Stability

Resistance to oxidation at high temperatures prevents carbon formation in the air compressor chambers, discharge lines and air vessels

Rust Protection

Assures protection against rust and corrosion

Antifoam Properties

Prevents accumulation of surface foam in the crankcase

Low Evaporation Loss

Guarantees minimum consumption of product

Application

Kixx Compressor P are recommended for stationary and portable compressors, operating at compression temperatures up to 220°C including compressors with oil lubricated pressure space, e.g. single and multistage reciprocating compressors or single or multistage centrifugal compressors. The 46 grade is primarily recommended for use in oil-flooded screw compressors as well as centrifugal compressors.

At high compression pressures, such as in multistage reciprocating compressors, the higher viscosity grade may be used. Kixx Compressor P has been tested and approved by "Rheinische-Westfälischer Überwachungsverein e.V." in Germany and it meets DIN 51506 VDL.

Performance Standard

- DIN 51506 VDL
- ISO L DAA/DAB

Kixx Compressor P

High Performance Reciprocating Compressor Oil

ISO VG 32, 46, 68, 100, 150, 220

Typical Properties

ISO VG	Density	KV40	KV100	Viscosity Index	Flash Point	Pour Point	Base Oil
	kg/L@15°C	mm ² /s @40°C	mm ² /s @100°C		°C	°C	
32	0.854	31.7	5.6	113	240	-45	Premium Base Oil
46	0.861	46.1	7.1	112	255	-38	Premium Base Oil
68	0.866	67.8	9.1	110	260	-35	Premium Base Oil
100	0.872	100.4	11.6	103	288	-33	Premium Base Oil
150	0.875	150.9	15.5	105	285	-32	Premium Base Oil
220	0.877	216.9	20.1	107	293	-32	Premium Base Oil

* The above data may differ slightly from the actual value of the product within the range where there is no abnormality in product performance.



Description

Kixx Compressor S is a premium performance, hydrocracked mineral based compressor oil containing a special oxidation inhibitor and a rust inhibitor. It is designed specifically for use in oil flood lubricated positive displacement rotary compressor.

Features & Benefits

Extended Oil Service Life

The outstanding oxidation stability of the hydrocracked mineral base oil and special inhibitor system resists oil breakdown at the elevated temperatures encountered during intimate inter-mixing of oil and air in rotary compressor service.

Minimum maintenance and downtime

The outstanding oxidation stability also resists the formation of harmful varnish and sludge deposits which are promoted by contact with condensed water vapor, dust and other particulate contaminants. The highly effective film forming corrosion inhibitor plates out on metal surface to protect the system against rust.

Trouble-free operation

The excellent air release and anti-foam properties of the highly refined base oil and inhibitor system minimize lubricant carry-over, protect against interruption of lubrication due to air entrained in the oil, and minimize the possibility of foaming and overflow in tanks and reservoirs. Excellent water separating characteristics make it easy to remove water draining.

Application

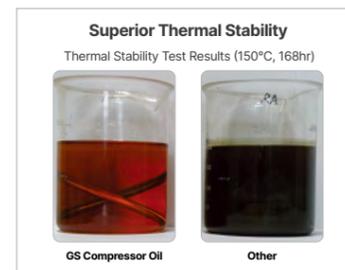
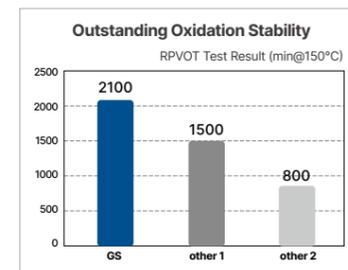
- Oil flood lubricated rotary screw air compressors
- Oil flood lubricated sliding vane air compressors
(Not recommended for use in breathing air compressors)

Performance Standard

- DIN 51506 VDL
- ISO L DAH/DAG

Unique Features

- The outstanding oxidation stability of the hydrocracked mineral base oil and special inhibitor system
- The superior thermal stability resists the formation of harmful varnish and sludge



Kixx Compressor S

High Performance Rotary Screw Compressor Oil

ISO VG 32, 46

Typical Properties

ISO VG	Density	KV40	KV100	Viscosity Index	Flash Point	Pour Point	Base Oil
	kg/L@15°C	mm ² /s @40°C	mm ² /s @100°C		°C	°C	
32	0.846	31.6	5.8	125	245	-39	VHVI Gr III 100% Base Oil
46	0.853	46.2	7.3	121	255	-40	VHVI Gr III 100% Base Oil

* The above data may differ slightly from the actual value of the product within the range where there is no abnormality in product performance.



Kixx Way Lube

High Performance Slideway Oil

ISO VG 32, 68, 220

Description

Kixx Way Lube is a high-performance slideway oil that meets the MAG Cincinnati Machine specifications. Kixx Way Lube, which is effective in preventing stick-slip, has improved adhesiveness for application to open lubrication systems such as machine tool slideways, and has an appropriate level of wear resistance, contributing to improved control precision and durability of machinery that repeats starting and stopping under various sliding speed conditions.

Features & Benefits

Stick-Slip Prevention Performance

Effectively prevents stick-slip of machine parts by optimizing viscosity and friction characteristics.

Good tackiness

Remains on the lubricated surface for a long period of time, when applied to open lubrication systems.

Good wear resistance

Prevents chemical damage to hydraulic elements under various operating conditions.

Application

- Various machine tools
- Open lubrication system
- Various machinery requiring use of lubricants with excellent tackiness

Performance Standard

Kixx Way Lube meets the following performance specification.

- MAG Cincinnati Machine P-53(VG 32)/P-47(VG 68)/P-50(VG 220)

Typical Properties

ISO VG	Density	KV40	KV100	Viscosity Index	Flash Point	Pour Point	Rust Prevention	Copper Corrosion
	kg/L@15°C	mm ² /s @40°C	mm ² /s @100°C		°C	°C		
32	0.8517	30.47	5.611	125	218	-42	Pass	1a
68	0.8667	68.13	9.297	114	248	-33	Pass	1a
220	0.8780	213.9	20.27	110	272	-27	Pass	1a

* The above data may differ slightly from the actual value of the product within the range where there is no abnormality in product performance.



Description

Kixx Spindle is a high-performance lubricant suitable for high-speed rotating machinery or machinery requiring low-viscosity Ash-Free lubricants. Kixx Spindle has excellent oxidation stability, wear resistance and rust and corrosion prevention, helping various machinery to perform stably for a long time.

Features & Benefits

Excellent oxidation stability

Maximizes replacement cycle by minimizing degradation of properties and performance due to oxidation of lubricating oil.

Good wear resistance

Prevents physical damage to machine elements operating under severe conditions.

Excellent corrosion and rust prevention

Prevents chemical damage to hydraulic elements under various operating conditions.

Application

- High speed rotating machine
- Various machinery for which the use of lubricants containing ash-free anti-wear additives is recommended

Performance Standard

Kixx Spindle meets the following performance specification.

- KS M 2126

Kixx Spindle

High Performance Spindle Oil

ISO VG 32, 68, 200

Typical Properties

ISO VG	Density	KV40	KV100	Viscosity Index	Flash Point	Pour Point	Rust Prevention	Copper Corrosion
	kg/L@15°C	mm ² /s @40°C	mm ² /s @100°C		°C	°C		
10	0.8394	10.06	2.684	103	160	-45	Pass	1a
15	0.8451	14.86	3.458	109	178	-39	Pass	1a

* The above data may differ slightly from the actual value of the product within the range where there is no abnormality in product performance.



Description

Kixx Rockdrill is a high-performance rock drilling oil that minimizes wear, friction and corrosion of major parts to ensure optimal performance of pneumatic rock drills. Rock drilling parts that transmit pneumatic energy to cause the rods to vibrate at very high speeds when subjected to high loads during rock crushing are exposed to conditions where it is difficult to create a sufficiently thick lubricating film. Kixx Rockdrill, which is applied with high-quality extreme pressure agents and friction coefficient modifiers, effectively protects rock drilling parts and minimizes the decrease in work efficiency due to the decrease in rock drilling performance.

Features & Benefits

Excellent wear resistance and extreme pressure performance

Prevents physical damage to hydraulic elements operating under severe conditions.

Excellent tackiness

Remains on the surface of rapidly vibrating machine parts for a long time and creates a stable lubricating film.

Application

- Various pneumatic tools (rock drills, drilling rigs, pile drivers, ballast tampers, chipping hammers, etc.)
- Various machinery for which the use of lubricants containing anti-wear additives is recommended

Performance Standard

Kixx Rockdrill meets the following performance specification.

- KS M 2126

Kixx Rockdrill

High Performance Rock Drilling Oil

ISO VG 100

Typical Properties

ISO VG	Density	KV40	KV100	Viscosity Index	Flash Point	Pour Point	Rust Prevention	Copper Corrosion
	kg/L@15°C	mm ² /s @40°C	mm ² /s @100°C		°C	°C		
100	0.8721	100.5	12.01	110	258	-27	Pass	1a

* The above data may differ slightly from the actual value of the product within the range where there is no abnormality in product performance.



Description

Kixx Therm is a highly refined, thermally stable paraffinic petroleum oil formulated for use as a heat transfer fluid in both closed and open heat transfer systems with forced circulation.

Features & Benefits

Excellent oxidation and thermal stability, rust and corrosion resistance, long-term use at high temperatures and system protection by minimizing carbon sludge formation.

Closed System

To ensure the long life of oil in the system with a system sealed with cooled oil or inert gas, the maximum oil film temperature on the heater surface can be used up to 315°C and the maximum oil film temperature on the heater surface can be used up to about 335°C in an efficient lubrication system with high thermal stability by minimizing varnish formation to gears or bearing surfaces.

Open System

In an expansion vessel, heat medium oil is a system that directly contacts oxygen in the air, and oxidation proceeds faster than closed systems due to direct contact between oxygen and heat medium oil in the air, so the maximum oil film temperature must be limited to 200°C or less.

Application

- Open systems operating at temperatures up to 200°C
- Closed systems (sealed with cold oil or inert gas) operating at bulk oil temperatures up to 320 °C
- A variety of industrial processes requiring high temperature maintenance

Kixx Therm

Heat Transfer Fluid

ISO VG 32, 46

Typical Properties

ISO VG	Density	KV40	KV100	Viscosity Index	Flash Point	Pour Point
	kg/L@15°C	mm ² /s @40°C	mm ² /s @100°C		°C	°C
32	0.851	32.1	5.7	117	226	-15
46	0.877	43.6	6.6	103	225	-15

Physical and thermal properties

Temperature	Specific Heat	Thermal Conductivity	Density	Vapor Pressure
°C	15/°Ckcal/kg°C	kcal/m-hr°C	kg/m ³	mmHg
0	0.42	0.116	880	-
100	0.51	0.109	820	-
150	0.56	0.106	780	-
200	0.6	0.103	750	2
250	0.65	0.1	720	255
300	0.69	0.097	690	100

* The above data may differ slightly from the actual value of the product within the range where there is no abnormality in product performance.



Description

Kixx Trans I is a our own produced, highly refined, single based inhibited transformer oil for use in severe conditions, such as high ambient temperatures, where oxidation resistant and thermally stable insulating oils meeting the IEC 60296:2020 transformer oil specification is recommended. Moreover, Kixx Trans I does not have aromatic content. So this product does not harm human being and the environment.

Features & Benefits

Extended Service Life

Effective anti-oxidation inhibitor limits the formation of sludge, deposits and soluble compounds which break down the electrical properties of the oil in severe, high ambient temperature or extended service conditions.

Prolongs transformer life

Excellent conductive heat transfer properties improve cooling of transformer component Low solvency protects electrical wire enamels

Excellent cold weather operation

Low pour point to ensure reliable operation in extremely low temperature conditions.

Maintains transformer efficiency

High dielectric strength and low dissipation factor provide excellent insulating characteristics.

Application

- Transformers
- Oil-immersed switchgear
- Circuit breakers
- Oil-filled capacitors
- Tap changers
- Electrical reclosures
- Fuses.

Performance Standard

- IEC 60296:2012 Inhibited

Kixx Trans I

Transformer Oil

ISO VG 100

Typical Properties

	Dielectric Strength	Kinematic Viscosity		PCB Contents	Pour Point	Flash Point	Corrosive Sulfur
	KV	mm ² /s @40°C	mm ² /s @100°C		°C	PM °C	
Kixx Trans I	> 60	7.6	2.2	Not detected	30	146	Non corrosive

* The above data may differ slightly from the actual value of the product within the range where there is no abnormality in product performance.



Description

Kixx Process oils are highly saturated paraffinic process oil with excellent color and very low aromatic content. GS Caltex' Modern all-hydro-processing technology assures that these oils have a light color and are odorless.

Customer Benefits

Kixx Process oils deliver value through

- Exceptional oxidation stability
- Good color stability
- Low volatility and low weight loss

Kixx Process oils are recommended for applications where discoloration, staining and sludging must be minimized.

Application

Kixx Process oils' functions as processing aids or as extender oils in rubber compounding. They are used to :

- Reduce the amount of time required for mixing
- Reduce the amount of heat generated in mixing
- Maximize the dispersion of components
- Extend product volume
- Reduce product cost while maintaining the physical properties of the rubber compound

Kixx Process oils are ideal for use in compounding a wide variety of finished rubber products, including :

- Footwear
- Agricultural spray
- Furniture polish
- Textiles
- Wire and cable insulation
- Adhesive, sealants and coatings
- Polymer modified asphalts
- Asphalt extender
- Automobile interior moldings
- Automotive under hood parts
- Tires, tire whitewalls, tubes and inner liners
- Insulation
- Gels
- Dielectric Fluids
- Drilling Fluids
- Carpet underlayment
- Heat Transfer fluids
- Foam
- Household products
- Roofing compounds
- Rubber membranes
- Weather-stripping

Kixx Process

Process Oil

Typical Properties

Product	Density	KV40	KV100	Viscosity Index	Saybolt Color	Pour Point	Aniline Point	Carbons type			Flash Point
	Kg/L@15°C	mm ² /s @40°C	mm ² /s @100°C			°C	°C	% Paraffinic	% Naphthenic	% Aromatic	
PO 2	0.8346	7.2	2.2	98	30	-45	96.5	65.18	34.46	0.36	158
PO 4	0.8312	19	4.1	120	30	-18	113.7	79.62	20.38	0	226
PO 6	0.8394	31.1	5.8	129	30	-20	119.3	77.65	22.35	0	234
PO 8	0.8447	49.4	7.9	129	30	-20	124.7	79.15	20.35	0	260
PO 150	0.8547	28.6	5.2	110	30	-19	110.6	58.99	31.01	0	224
PO 220	0.8562	43.3	5.8	112	30	-30	116.6	71.5	28.5	0	240

* The above data may differ slightly from the actual value of the product within the range where there is no abnormality in product performance.



Description

Kixx RF P 85 is a highly refined polyol ester-based refrigerant oil blended with state-of-the-art additives that has miscibility with various refrigerant, especially with low GWP refrigerant. It is an advanced eco-friendly refrigerant oil that has excellent wear protection performance and chemical stability.

* GWP : Global warming Potential

Features & Benefits

Excellent Miscibility

With two-layer separation temperature below -30°C it enables stable operation of equipment without layer separation between refrigerant and refrigerator oil at a wide range of temperatures.

Wear Protection

With high viscosity index and tailored made additives it ensures excellent wear performance by securing viscosity of refrigerator oil and wear protection layer in various operating condition.

Chemical Stability

It is very stable and does not make any reaction in contact with various metal material, especially with copper, which is the main cooling cycle line material.

Application

Refrigerant oil for a compressor in a cooling cycle which use below refrigerant gas especially for scroll type compressors that requires high viscosity

- HFC : R32, R410A, R134a
- H C : R290
- HFO : R1234yf XXXX

Performance Standard

- Samsung Electronics

Kixx RF P 85

Eco-friendly refrigerant oil based on POE (Polyol Ester)

Typical Properties

Items	Test	Unit	HFC			HC	HFO
			R32	R410a	R134a	R290	R1234yf
Kinematic Viscosity	ASTM D445	cSt@40 °C	82.5				
Density	ASTM D4052	Kg/L@15 °C	1.03				
Viscosity Index	ASTM D2270	-	98				
TAN	ASTM D664	mgKOH/g	0.06				
Pour Point	ASTM D6749	°C	-35				
Flash Point	ASTM D92	°C	275				
4-Ball AW	ASTM D4172	@40kgf, mm	0.95				
Miscibility	ASHRAE 86	20vol% Oil, °C	-39.6	-50.7	-49.6	-50.8	-56.6
Pin on Vee AW, mg	ASTM D2670	Mg	7.0	6.1	6.7	12.3	6.5
Chemical Stability			No Reaction				
Cu Plating	ASHRAE 97 (175°C, 2weeks)	-	No Reaction				
TAN Changes		-	-0.02	-0.01	-0.01	+0.02	+0.01

* The above data may differ slightly from the actual value of the product within the range where there is no abnormality in product performance.



Description

Kixx RF P 85X is a highly refined polyol ester-based refrigerant oil blended with state-of-the-art additives that has miscibility with various refrigerant, especially with low GWP refrigerant. It is an advanced eco-friendly refrigerant oil that has excellent wear protection performance and chemical stability for Rotary type Compressors.

* GWP : Global warming Potential

Features & Benefits

Excellent Miscibility

With two-layer separation temperature below -30°C it enables stable operation of equipment without layer separation between refrigerant and refrigerator oil at a wide range of temperatures. In particular, it can run stably with various types of refrigerants such as R134a and R410A, which are conventional refrigerants, as well as R32 and R290, which are classified as eco-friendly refrigerants.

Wear Protection

With high viscosity index and tailored made additives it ensures excellent wear performance by securing viscosity of refrigerator oil and wear protection layer in various operating condition.

Chemical Stability

It is very stable and does not make any reaction in contact with various metal material, especially with copper, which is the main cooling cycle line material.

Application

Refrigerant oil for a compressor in a cooling cycle which use below refrigerant gas especially for rotary type compressors that requires high viscosity

- HFC : R32, R410A, R134a, R404A
- H C : R290
- HFO : R454B, R513A

Performance Standard

- Samsung Electronics (To be approved)

Kixx RF P 85x

Eco-friendly refrigerant oil based on POE (Polyol Ester)

Typical Properties

Items	Test	Unit	R32	R410A	R290	R454B	R134a	R404A	R513A
Kinematic Viscosity	ASTM D445	cSt@40 °C				86.9			
Density	ASTM D4052	Kg/L@15 °C				1.03			
Viscosity Index	ASTM D2270	-				99			
TAN	ASTM D664	mgKOH/g				0.03			
Pour Point	ASTM D6749	°C				-37			
Flash Point	ASTM D92	°C				285			
4-Ball AW	ASTM D4172	@40kgf, mm				0.75			
Miscibility	ASHRAE 86	20vol% Oil, °C	-35	-49	-34	-52	-50	-54	-56
Pin on Vee AW, mg	ASTM D2670	Mg	7.2	6.4	7.9	8.6	11.5	3.0	3.2
Chemical Stability		-				-			
Cu Plating	ASHRAE 97 (175°C, 2weeks)	-	No Reaction						
TAN Changes		-	+0.01	+0.01	+0.01	-0.02	-0.02	+0.02	+0.02

* The above data may differ slightly from the actual value of the product within the range where there is no abnormality in product performance.



Kixx Chain BIO

Fully Synthetic, Biodegradable Chain Saw Oil

ISO VG 46

Description

Kixx Chain BIO is an advanced biodegradable chain saw oil which qualifies for KWF(Kuratorium für Waldarbeit und Forsttechnik) performance requirements. It is readily biodegradable with a low level of ecotoxicity and bioaccumulation, so that the use for chain saws operated in environmentally sensitive area is particularly suited. Fully synthetic esters, blended with state-of-the-art additives, provide Kixx Chain BIO with outstanding lubrication performance and environmental acceptability

Features & Benefits

High eco-friendliness

The content of bio-based carbon is very high at 98%(test standard: ASTM D6866). Ecotoxicity and bioaccumulation are very low, and biodegradability is high, so even in case of external leakage due, the impact on the environment is low.

Excellent low temperature fluidity

Assists forestry equipment operating in extremely cold or extremely low temperature environments to perform stably.

Good wear resistance

Prevents physical damage to the chain and bar of a chainsaw under high load conditions occurring during logging operations.

Excellent rust and corrosion prevention

Effectively prevents chemical damage to machine parts even under high temperature and high humidity conditions.

Application

- Chain Saw(as a lubricant for bar and chain)
- Forestry machineries operated under mild load condition

Performance Standard

Kixx Chain BIO obtains the following approval.

- EU Ecolabel biodegradable chain saw oil

Kixx Chain BIO meets the following performance specifications.

- German BLUE ANGEL DE-UZ 178
- German KWF, Requirements for Verifying Usability of Chain Lubricants (Ver. 2017)

Typical Properties

ISO VG	Density	Kinematic Viscosity		Viscosity Index	Flash Point	Pour Point	HTHS	CCS	Base Oil
	kg/L @15°C	mm ² /s @40°C	mm ² /s @100°C		°C	°C	mPa·s @150°C	cP	
46	0.8640	46.75	8.190	150	248	-36	Pass	1a	100% PAO/POE Synthetic

* The above data may differ slightly from the actual value of the product within the range where there is no abnormality in product performance.



Description

Kixx Immersion Fluid S is a special product developed exclusively for liquid immersion cooling, the latest cooling technology in the data center industry. Kixx immersion Fluid S, which consist of the state-of-the-art synthetic technology-based materials and additives can help to improve energy efficiency and protect server hardware of data centers.

Liquid immersion cooling is a technology that directly immersing electronics in non-conductive Fluids. It is more energy efficient than conventional cooling methods, so it is highly applicable in data centers, EV batteries, ESS batteries, and EV DC chargers.

Liquid immersion cooling minimizes the heat, dust and vibration effects, which are the main causes of server failure, So users expect better hardware service life compared to conventional cooling.

Features & Benefits

Special Product validated with server applicability assessment

Verify normal server operation, thermal management performance, and energy efficiency by applying actual servers to an immersion cooling environment.

Designed Fluid for Improving Energy Efficiency

Fluid design for improved cooling energy efficiency and equipment safety.

Chemical Stability

Minimize impact on human body and environment by applying NSF Food Grade Materials.

Application

- Immersion Cooling System for Data centers
- Other areas where Immersion Cooling technology is applicable

Kixx Immersion Fluid S

Eco-friendly refrigerant oil based on POE (Polyol Ester)

Typical Properties

Test Item	Test Method	Kixx Immersion Fluid S 5	Kixx Immersion Fluid S 30
Appearance	ASTM D4176	Bright & Clear	Bright & Clear
ASTM Color	ASTM D1500	L0.5	L0.5
Auto-Ignition Point	ASTM D659	> 320 °C	> 400 °C
Flash Point	ASTM D92	150 °C	> 250 °C
Pour point	ASTM D6749	< - 60 °C	< - 60 °C
Density @15°C	ASTM D4052	796 g/l	827 g/l
Viscosity (40°C)	ASTM D445	5 cSt	30 cSt
Water Content	ASTM D6304	≤40 ppm	≤40 ppm
Acidity	ASTM D664	≤0.01 mg KOH/g	≤0.01 mg KOH/g
Thermal Conductivity	ASTM D7896	0.13 W/m-K	0.15 W/m-K
Specific Heat	ASTM D7896	2.29 kJ/Kg-K	2.50 kJ/Kg-K
Breakdown Voltage	IEC 60156	> 30 KV	> 30 KV
Dielectric Dissipation Factor	IEC 60247	< 0.005	< 0.005
Volume Resistivity	IEC 60247	> 1.0 × 10 ⁹ GΩ.m	> 1.0 × 10 ⁹ GΩ.m

* The above data may differ slightly from the actual value of the product within the range where there is no abnormality in product performance.



Kixx Lubricating the Future

08 Grease

Kixx Grease Liplax

Kixx Grease Moly EP

Kixx Grease Therma

Kixx Grease EP (000)

Kixx Grease EP (0,1,2,3)

Kixx Grease



Description

Kixx Grease Liplax is a premium, multipurpose EP automotive wheel bearing and chassis grease containing a lithium complex thickener, EP additives, rust and oxidation inhibitors and tackiness additives. It is red in color.

Customer Benefits

Saves maintenance costs

Effective EP additive protects against bearing wear under severe conditions and shock loading. The effective rust and corrosion inhibitors protect metal surfaces, even in conditions of severe water exposure.

Minimizes downtime

High dropping point minimizes leakage from bearings at elevated temperatures and excellent oxidation resistance ensures long grease life. The natural water resistance of the lithium complex thickener, combined with the additional tackiness additive, prevents water washout.

Minimizes inventory costs

Multipurpose capability allows use in a wide range of automotive and industrial applications, reducing the number of different greases required and eliminating product misapplication.

Application

- Automotive wheel bearings
- Chassis lubrication
- Highway and off-highway applications
- Construction equipment
- Agricultural tractors
- Heavy-duty transport
- General industrial greasing

Usable temperature range in continuous service : -30 to 165°C

Maximum temperature for short term exposure is 220°C.

Performance Standard

- NLGI Service Category GC-LB
- DIN 51502 KP 2 P-30

Kixx Grease Liplax

Automotive Wheel Bearing & Chassis Grease

NLGI 2

Typical Properties

NLGI Grade	Droping Point	Oil Viscosity	Penetration	Thickener Type	Thickener (Lithium Complex)	Water Washout	4 ball EP
	°C	mm ² @ 40°C	Worked @ 25°C		m %	@ 79°C, 1hr	kgf
2	263	200	280	Lithium Complex	11	0.65	250

* The above data may differ slightly from the actual value of the product within the range where there is no abnormality in product performance.



Description

Kixx Grease Moly EP is a dark gray, multipurpose EP grease primarily designed for construction, mining and agricultural equipment where an extra measure of protection in shock loading conditions is required. It contains a highly refined ISO VG 220 mineral base oil, lithium soap thickener, EP additives, rust and oxidation inhibitors, plus molybdenum disulfide solid film lubricant.

Customer Benefits

Saves on heavy-duty maintenance

Effective EP additive and molybdenum disulfide solid film lubricant protect against component wear under high load conditions and/or shock loading. Rust and corrosion inhibitors protect metal surfaces in wet operating conditions. Even if insufficient grease is used, some molybdenum disulfide tends to stay in place and protect metal surfaces.

Long service life

Excellent oxidation resistance ensures enhanced grease service life.

Ease of application

Good pumpability characteristics of the lithium thickener provide suitable flow properties for grease pump application systems.

Wide range of applications

Multipurpose capability allows use in a wide range of heavy-duty automotive and industrial applications, reducing the number of different greases.

Application

- Automotive
- Construction
- Earthmoving, quarrying and mining
- Agricultural equipment
- Chassis grease point lubrication
- Pins, bushings and other sliding surface or pivot points
- All types of anti-friction bearings
- Ball joints
- Universal joints (U-joints)
- High and shock load applications

Usable temperature range in continuous service is -30 to 130°C.

Maximum temperature for short term exposure is 175°C.

Kixx Grease Moly EP

Heavy Load EP Grease

NLGI 2

Typical Properties

NLGI Grade	Droping Point	Molybdenum Disulfide	Oil Viscosity		Penetration	Thickener (Lithium)
	°C		mm ² /s @ 40°C	mm ² /s @ 100°C		m %
2	195	3	208	18.2	275	7.5

* The above data may differ slightly from the actual value of the product within the range where there is no abnormality in product performance.



Description

Kixx Grease Therma is a non-melting, EP grease formulated from a highly refined ISO 100 mineral base oil, an organoclay (bentonite) thickener, and an effective EP agent for high temperature applications where frequent re-application is available.

Customer Benefits

Minimizes equipment failure

The special non-melting organoclay thickener prevents grease loss from bearings at high temperature.

Wide temperature range application

May be used in applications up to 135°C with normal re-greasing, and up to 260°C with very frequent regreasing, making it suitable for use in a wide range of high temperature industrial applications.

Prevents failure in wet conditions

Organoclay thickener gives excellent resistance to water washout.

Application

- Industrial ball and roller bearings in high temperature applications.
- Exhaust fan bearings
- Furnace door bearings
- Kiln car wheel bearings
- Roll neck bearings
- High temperature conveyor bearings
- Rotary kiln bearings

Usable temperature range : Continuous service -20 to 135°C

With frequent relubrication 260°C

Kixx Grease Therma

High Temperature Grease

NLGI 1, 2

Typical Properties

NLGI Grade	Dropping Point	Thickener (modified bentonite)	Oil Viscosity		Penetration	Timken OK Load
	°C		mm ² /s @ 40°C	mm ² /s @ 100°C		
2	Not applicable	12	92.5	10.5	280	20

* The above data may differ slightly from the actual value of the product within the range where there is no abnormality in product performance.



Description

Kixx Grease EP is a multipurpose EP grease containing highly refined mineral base oils, lithium thickener, extreme pressure (EP) additives and rust and oxidation inhibitors. It is suitable as a multipurpose automotive grease for general purpose applications.

Customer Benefits

Saves maintenance costs

Effective EP additive protects against component wear under high load conditions. Rust and corrosion inhibitors protect metal surfaces.

Long service life

Excellent oxidation resistance ensures enhanced grease service life.

Ease of application

Good pumpability characteristics of the lithium thickener provide suitable flow properties for grease pump application systems (NLGI 2)

Minimizes inventory costs

Multipurpose capability allows use in a wide range of industrial and automotive applications reducing the number of different greases required and eliminating product misapplication.

Application

- Automotive wheel bearings
- Chassis grease point lubrication
- Industrial plain and rolling element bearings
- General plant lubrication
- Centralized lubrication systems (NLGI 0 and 1)
- Construction equipment bearings
- Earthmoving, quarrying and mining
- Agricultural equipment

Usable temperature range in continuous service is :

NLGI 1 -30 to 130°C | **NLGI 2** -30 to 130°C | **NLGI 3** -20 to 130°C

Maximum temperature for short term exposure is 220°C

Kixx Grease EP(0,1,2,3)

Multipurpose EP Grease

NLGI 0, 1, 2, 3

Typical Properties

NLGI Grade	Dropping Point	Penetration	Thickener Type	Thickener Content	Water Washout
	°C			Worked @ 25°C	mass %
0	210	364	Lithium	4.28	-
1	225	314	Lithium	5.64	7.5
2	235	269	Lithium	7.92	3
3	245	235	Lithium	11.22	1.6

* The above data may differ slightly from the actual value of the product within the range where there is no abnormality in product performance.



Description

Kixx Grease EP is a semi-fluid type grease containing lithium thickener, mineral base oil, EP additives, rust and oxidation inhibitors, for use in centralized lubrication systems and concrete pump cars.

Customer Benefits

Long service life

Good oxidation stability enables long service life.

Anti-wear property

Good anti-wear property protects equipment.

Good pumpability

Good pumpability allows pumping at low temperature.

Rust and corrosion protection

Rust and corrosion inhibitors protect equipment against rust and corrosion.

Application

- Concrete pump cars
- Centralized lubricating systems
- Application where EP semi-fluid grease is required

Usable temperature range in continuous service is : -30 to 120°C

Kixx Grease EP(000)

Centralized Lubrication System Grease

NLGI 000

Typical Properties

NLGI Grade	Dropping Point	Oxidation stability	Copper Corrosion	Penetration	Evaporation loss
	°C	kgf/cm ²	@ 100°C, 24h	Worked @ 25°C	wt%
000	164	0.35	No Tarnish	460	0.30

* The above data may differ slightly from the actual value of the product within the range where there is no abnormality in product performance.



Description

Kixx Grease is a smooth, buttery texture, yellowish, translucent, general purpose automotive and industrial grease with adhesive properties manufactured from lithium soap and containing an oxidation inhibitor.

Customer Benefits

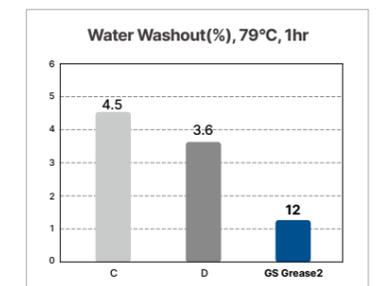
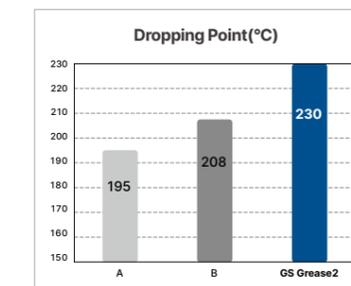
- Protects bearings from damage under light-load or shock-load conditions.
- Lubricates effectively in wet conditions due to its resistance to water washout.
- Provides long service life through high oxidation stability.
- Resists leakage from bearing through good mechanical stability.
- Does not run down and gives continuous lubrication thanks to its excellent tackiness.

Application

- Most automotive grease applications including wheel bearings, ball joints, universal joints and linkages.
- Industrial ball and roller bearing, plain bearing, niddle bearing.
- General industrial applications where EP characteristics are not needed.

Unique Features

Kixx Grease is a multipurpose grease with ISO 220 base oil, oxidation and corrosion inhibitors. It has high drop point leading to wide usable temperature range.



Kixx Grease

General Purpose Automotive and Industrial Grease

NLGI 2, 3

Typical Properties

NLGI Grade	Dropping Point	Penetration	Thickener Type	Thickener Content	Water Washout	4 ball EP	Life Performance	Usable Temperature Range
	°C	Worked @ 25°C		mass %	@ 79°C, 1hr	kgf	hrs @ 165°C	
2	235	272	Lithium	8.5	2.49	200	80	-30 to 150
3	263	236	Lithium	10	1.27	200	80	-20 to 160

* The above data may differ slightly from the actual value of the product within the range where there is no abnormality in product performance.

09 Marine

- Kixx Marine C
- Kixx Marine S
- Kixx Marine 10
- Kixx Marine 20
- Kixx Marine 30
- Kixx Marine 40
- Kixx Marine 50





Description

Kixx Marine C is a high-performance SAE 50 cylinder lubricant intended for lubricating slow-speed engines at very high mechanical and thermal loads. It is blended from highly refined, paraffinic base oils and carefully selected additives to provide superior ring and liner wear protection and excellent piston cleanliness in slow-speed crosshead engines. It is developed specifically for high pressure and high-temperature applications.

Customer Benefits

Wear Protection

Ensures protection against excessive cylinder liner and piston ring wear, thus allowing prolonged service intervals.

Detergent and Dispersant Properties

Prevents ring sticking and minimizes deposit formation throughout the combustion chamber exhaust areas.

Excellent Lubrication Properties

Maintains an oil film under severe, high load conditions, thereby reducing frictional wear and preventing scuffing of liners, pistons and rings.

Storage Stability

Completely stable at all ambient temperatures. Will not separate or deteriorate in long term storage.

Compatibility

Fully miscible and compatible with single-phase alkaline diesel cylinder lubricants generally known to the international marine trade.

Application

Recommended for lubricating the cylinders of all large slow-speed marine diesel engines operating at high specific power outputs and high thermal loads

Kixx Marine C

Cross Head Cylinder Oil for Low Sulfur

Typical Properties

TBN Base Number, mg KOH/g	SAE Grade	Kinematic Viscosity		Viscosity Index	FZG Fail Load Stage	Sulfated Ash m %	Pour Point °C
		mm ² /s @40°C	mm ² /s @100°C				
40	50	231.6	21	107	11	9	-21
55	50	230	20.0	106	11	9	-17
71	50	220	20.5	105	11	9	-15

* The above data may differ slightly from the actual value of the product within the range where there is no abnormality in product performance.



Description

Kixx Marine S is a premium quality, alkaline diesel engine oil designed for crankcase (system) lubrication of large, low speed diesel engines in marine and stationary applications.

Customer Benefits

Time Extension Between Overhauls

Special detergent and ashless dispersant additive system ensures crankcases and lubricating oil lines are kept free of deposits. The combination of detergency and excellent oxidation stability provides clean piston cooling galleries and chambers.

Protection of Bearings from Corrosive Wear

Level of alkalinity reserve ensures that acidic combustion products (which enter the crankcase due to leaks in the connecting rod seals) are effectively neutralized to protect bearings and bright metals against corrosive wear.

Easy Oil Purification

Combination of highly refined basestocks and special detergent additive system provides excellent water tolerance and separation properties which enable efficient purifier operation. Therefore, water washing is neither necessary nor recommended.

Application

Crankcase lubrication of :

- Large, low speed (less than 250 rpm), two-cycle crosshead diesel engines
- Particularly suitable for engines with oil-cooled pistons
- Older-type marine trunk piston engines with separate cylinder lubrication
- Marine and stationary applications

Service Considerations

Marine system oils are designed for use with active purification systems. As such systems continuously remove contaminants from the oil, long service lives are possible and it is not usual to change out the lubricant on a fixed schedule. Accordingly, it is important that the oil's condition be monitored and the changeout period be determined by means of regular oil analysis and interpretation in accordance with manufacturers' guidelines. While Kixx Marine S has excellent water separation properties, water washing is neither necessary nor recommended. However, contamination with other engine oils may drastically affect its ability to maintain these excellent water separation characteristics.

Kixx Marine S

Cross Head System Oil

Typical Properties

TBN Base Number, mg KOH/g	SAE Grade	Kinematic Viscosity		Viscosity Index	FZG Fail Load Stage	Sulfated Ash m %
		mm ² /s @40°C	mm ² /s @100°C			
5.3	20	65.5	8.5	100	12	0.7
5.4	30	108	11.9	98	12	0.7

* The above data may differ slightly from the actual value of the product within the range where there is no abnormality in product performance.



Description

Kixx Marine 10 is a lower alkaline reserve (12 Base Number) trunk piston engine oil (TPEO). It is designed for use in medium-speed trunk piston engines burning distillate fuels with sulfur content up to 1.5% in marine or stationary service.

Customer Benefits

Maintains power output

The detergent/dispersant additive system provides control of high temperature deposits in areas such as the undercrown of the piston and the piston ring belt area, enabling piston rings to function efficiently.

Protection of Bearings from Corrosive Wear

Base Number (BN) level and superior alkalinity retention characteristics maintain sufficiently high BN under all service conditions to ensure corrosive acids formed by the combustion of fuel sulfur are effectively neutralized, thereby minimizing liner wear.

Efficient purifying system performance

Excellent water separation characteristics enable water to be centrifuged out with essentially no loss of additive.

Application

- Medium-speed trunk piston engines in stationary power generation
- Medium-speed trunk piston engines (marine service)
- Engine reduction gears

Kixx Marine 10

10-TBN Trunk Piston Engine Oil

Typical Properties

TBN Base Number, mg KOH/g	SAE Grade	Viscosity		Viscosity Index	FZG Fail Load Stage	Sulfated Ash m %
		mm ² /s @40°C	mm ² /s @100°C			
12	30	96.0	11	99	11	1.6
12	30	137	14.0	98	11	1.6

* The above data may differ slightly from the actual value of the product within the range where there is no abnormality in product performance.



Description

Kixx Marine 20 is a medium alkaline reserve (20 Base Number) trunk piston engine oil (TPEO). Specifically designed for use in high specific output medium speed trunk piston engines burning lower sulfur content (up to 2.0%) heavy residual fuels or marine diesel fuel. Particularly suited to high load factor operations in marine or stationary service and where heavy fuels with high asphaltene content (such as those containing visbroken residues) are used.

Customer Benefits

Wear Protection

High alkalinity levels control cylinder liner wear effectively and protect bearings from corrosion. High-performance antiwear additives provide excellent protection against adhesive wear for cams, camshaft and bearings. Kixx Marine 20 also provides a high degree of water tolerance and antifoam protection.

Detergent-Dispersant Properties

Keeps crankcase and oil control rings clean. Prevents deposit formation throughout the engine. Reduces lube oil filter blockage. Effectively handles insolubles.

Oxidation Stability

Oxidation inhibitors protect the oil against thermal stresses, protect engine parts from corrosion and reduce undercrown deposits while promoting extended lubricant life.

Rust Prevention

Prevents corrosion of engine parts when engine is not in operation.

Balanced Additive Combination

Provides minimum maintenance and downtime, long engine life and economical operation.

Application

- Medium-speed trunk piston engines including latest designs in stationary power generation, especially in high load factor operations
- Medium-speed trunk piston engines in marine service

Kixx Marine 20

20-TBN Trunk Piston Engine Oil

Typical Properties

TBN Base Number, mg KOH/g	SAE Grade	Viscosity		Viscosity Index	FZG Fail Load Stage	Sulfated Ash m %
		mm ² /s @40°C	mm ² /s @100°C			
20	30	97.5	11	98	12	2.5
20	40	139	14	97	12	2.5

* The above data may differ slightly from the actual value of the product within the range where there is no abnormality in product performance.



Kixx Marine 30

30-TBN Trunk Piston Engine Oil

Description

Kixx Marine 30 is a high alkaline reserve (30 Base Number) trunk piston engine oil (TPEO) designed for use in high specific output mediumspeed trunk piston engines burning residual fuels (up to 4.5% sulfur). Particularly suited to high load factor operations in marine or stationary service and where heavy residual fuels with high asphaltene content (via broken residue) are used.

Customer Benefits

Wear Protection

High alkalinity levels control cylinder liner wear effectively and protect bearings from corrosion. High-performance antiwear additives provide excellent protection against adhesive wear for cams, camshaft and bearings. Kixx Marine 30 also provides a high degree of water tolerance and antifoam protection.

Detergent-Dispersant Properties

Keeps crankcase and oil control rings clean. Prevents deposit formation throughout the engine. Reduces lube oil filter blockage. Effectively handles insolubles.

Oxidation Stability

Oxidation inhibitors protect the oil against thermal stresses, protect engine parts from corrosion and reduce undercrown deposits while promoting extended lubricant life.

Rust Prevention

Prevents corrosion of engine parts when engine is not in operation.

Balanced Additive Combination

Provides minimum maintenance and downtime, long engine life and economical operation.

Application

- Medium-speed trunk piston engines including latest designs in stationary power generation, especially in high load factor operations
- Medium-speed trunk piston engines in marine service

Typical Properties

TBN Base Number, mg KOH/g	SAE Grade	Viscosity		Viscosity Index	FZG Fail Load Stage	Sulfated Ash m %
		mm ² /s @40°C	mm ² /s @100°C			
30	30	96.8	11	100	12	3.6
30	40	136	14.2	102	12	3.4

* The above data may differ slightly from the actual value of the product within the range where there is no abnormality in product performance.



Kixx Marine 40

40-TBN Trunk Piston Engine Oil

Description

Kixx Marine 40 is a high alkaline reserve (40 Base Number) trunk piston engine oil (TPEO) designed for use in high specific output mediumspeed trunk piston engines burning residual fuels (up to 4.5% sulfur). Particularly suited to high load factor operations in marine or stationary service and where heavy residual fuels with high asphaltene content (via broken residue) are used.

Customer Benefits

Wear Protection

High alkalinity levels control cylinder liner wear effectively and protect bearings from corrosion. High-performance antiwear additives provide excellent protection against adhesive wear for cams, camshaft and bearings. Kixx Marine 40 also provides a high degree of water tolerance and antifoam protection.

Detergent-Dispersant Properties

Keeps crankcase and oil control rings clean. Prevents deposit formation throughout the engine. Reduces lube oil filter blockage. Effectively handles insolubles.

Oxidation Stability

Oxidation inhibitors protect the oil against thermal stresses, protect engine parts from corrosion and reduce undercrown deposits while promoting extended lubricant life.

Rust Prevention

Prevents corrosion of engine parts when engine is not in operation.

Balanced Additive Combination

Provides minimum maintenance and downtime, long engine life and economical operation.

Application

- Medium-speed trunk piston engines including latest designs in stationary power generation, especially in high load factor operations
- Medium-speed trunk piston engines in marine service

Typical Properties

TBN Base Number, mg KOH/g	SAE Grade	Viscosity		Viscosity Index	FZG Fail Load Stage	Sulfated Ash m %
		mm ² /s @40°C	mm ² /s @100°C			
40	40	139	14	97	12	4.8

* The above data may differ slightly from the actual value of the product within the range where there is no abnormality in product performance.



Description

Kixx Marine 40 is a high alkaline reserve (40 Base Number) trunk piston engine oil (TPEO) designed for use in high specific output mediumspeed trunk piston engines burning residual fuels (up to 4.5% sulfur). Particularly suited to high load factor operations in marine or stationary service and where heavy residual fuels with high asphaltene content (via broken residue) are used.

Customer Benefits

Wear Protection

High alkalinity levels control cylinder liner wear effectively and protect bearings from corrosion. High-performance antiwear additives provide excellent protection against adhesive wear for cams, camshaft and bearings. Kixx Marine 50 also provides a high degree of water tolerance and antifoam protection.

Detergent-Dispersant Properties

Keeps crankcase and oil control rings clean. Prevents deposit formation throughout the engine. Reduces lube oil filter blockage. Effectively handles insolubles.

Oxidation Stability

Oxidation inhibitors protect the oil against thermal stresses, protect engine parts from corrosion and reduce under crown deposits while promoting extended lubricant life.

Rust Prevention

Prevents corrosion of engine parts when engine is not in operation.

Balanced Additive Combination

Provide minimum maintenance and downtime, long engine life and economical operation.

Application

- Medium-speed trunk piston engines including latest designs in stationary power generation, especially in high load factor operations
- Medium-speed trunk piston engines in marine service

Kixx Marine 50

50-TBN Trunk Piston Engine Oil

Typical Properties

TBN Base Number, mg KOH/g	SAE Grade	Viscosity		Viscosity Index	FZG Fail Load Stage	Sulfated Ash m %
		mm ² /s @40°C	mm ² /s @100°C			
50	40	138	14.3	101	12	6.1

* The above data may differ slightly from the actual value of the product within the range where there is no abnormality in product performance.



Kixx *Lubricating the Future*



Kixx lubricants are engineered with premium quality base oil produced here at GS Caltex Yeosu Complex.

Brand Renewal

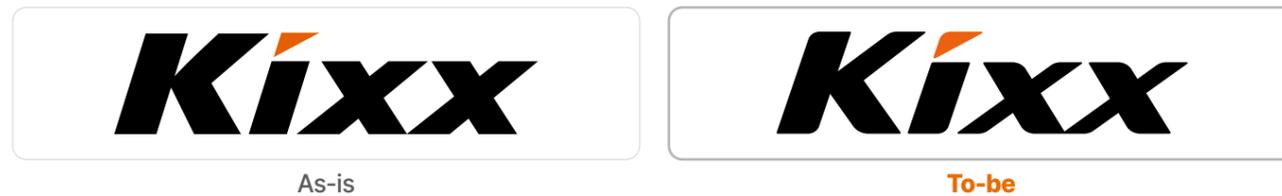
With this renewal, Kixx has redefined its overall brand identity—including the logo, slogan, and color system. These changes clarify the brand's identity as a global lubricant brand and strengthen its future-oriented image.

■ **Application Scope** : Logo / Slogan / Color System

Updated

Logo

The updated logo retains the bold and dynamic impression of the previous design while refining its sharp, rigid lines with smoother curves that reflect the fluid nature of lubricants.



Slogan

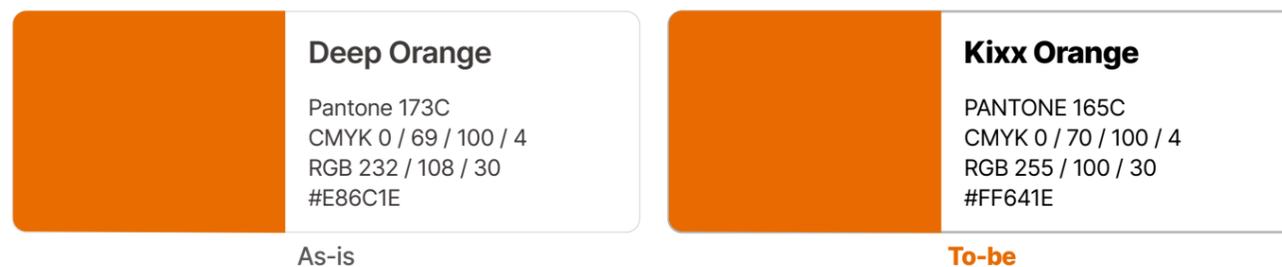
- Changed from “All Ways with You” to “Lubricating the Future.”
- The slogan has been updated to reflect the characteristics of lubricants conveying the value of going beyond products to help the world run smoothly and serve as a driving force for a brighter future.
- The new slogan conveys a broader vision extending beyond passenger car engine oils to include industrial lubricants and future business ventures while also reflecting the company's ESG values and commitment to sustainability.



Color System

While retaining the high visibility of the original orange color, its brightness and saturation have been adjusted to improve adaptability across a variety of media platforms.

* The black color system remains unchanged from the previous version.



Product System Renewal

Kixx has redesigned its product system and improved the clarity of product names to enhance customer understanding. By simplifying the product categories and clearly differentiating performance tiers, customers can more easily select the product best suited for their vehicle.

■ **Application Scope** : Passenger Car Engine Oil / Motorcycle Engine Oil / Commercial Vehicle Engine Oil

Updated

Simplified Category System and Introduction of Flagship Line

- Product types that were previously divided into four or more categories have been simplified and renamed for better consistency.

Passenger Car Engine Oil	Motorcycle Engine Oil	Commercial Vehicle Engine Oil
GX	MX	DX

- Passenger car engine oils are now divided into two categories : the flagship line and the standard line. The flagship line showcases Kixx's advanced technology and features products designed to meet evolving trends in the lubricants industry.

Tier System

- The previous tier grading system, which varied by product type, has been standardized into three tiers—9, 7, and 5—making it easier to compare performance across all product lines.
- The previous PAO 1 product, as an exception to the three-tier system, has been renamed PAO 100 to more clearly and intuitively indicate that it is made with 100% PAO.

Subdivisions [Customer Benefits]

To enhance customer convenience during product selection, subdivisions, including vehicle type and product features, have been added to the product names.

Passenger Car Engine Oil	Motorcycle Engine Oil	Commercial Vehicle Engine Oil
Euro, Diesel, Dexos1, DL-1, LPG, Euro FE	4T, Scooter, 2T	PAO, Euro, DH-2, CNG

* Changes Before and After

	As-is				To-be			
	Category				Category	Tier	Subdivision	
PCMO	PAO	G	D	LPG	Premium	9	Euro Diesel LPG Dexos1 Fuel economy ...	
HDDO	HD							GX
								DX
					MX	5		
MCO	Ultra	M						

Package Design Renewal

Along with updates to the brand identity and product names, the package designs have also been renewed. The new designs enhance the visual aesthetics and delivers information more clearly, making the product features immediately recognizable while reinforcing a consistent brand image.

■ **Application Scope** : Kixx Lubricant Products



1L

4L

20L

Updated

Label Design

- Retained signature diagonal line graphic to reinforce brand continuity.
- Improved information delivery by streamlining redundancies and differentiating information.
- Incorporated radial pattern graphics to visually express dynamic performance and advanced technology
- Applied differentiated color schemes to each product type for clearer distinction



Container Design

The 1L, 3L, 4L, 5L, and 6L container designs have been updated with a clean and durable look, featuring a more defined, straight-edged silhouette.

[1L]

[4L]

[6L]



As-is

To-be



As-is

To-be



As-is

To-be

Updated Product Names Breakdown

Passenger Car Motor Oil

OLD		NEW	
Kixx PAO 1	0W-30	Kixx PAO 100	0W-30
Kixx PAO 1	0W-40	Kixx PAO 100	0W-40
Kixx PAO A3/B4	5W-30	Kixx PAO	A3/B4 5W-30
Kixx PAO A3/B4	5W-40	Kixx PAO	A3/B4 5W-40
Kixx PAO C3	5W-30	Kixx PAO	C2/C3 5W-30
Kixx PAO C3	5W-40	Kixx PAO	C3 5W-40
Kixx BIO1	0W-20	Kixx BIO	0W-20
Kixx BIO1	5W-30	Kixx BIO	5W-30
Kixx Hybrid	0W-16	Kixx Hybrid	0W-16
Kixx Hybrid	0W-20	Kixx Hybrid	0W-20
Kixx G1 Dexos1	0W-20	Kixx GX9 Dexos1	0W-20
Kixx G1 Dexos1	5W-30	Kixx GX9 Dexos1	5W-30
Kixx G1 A3/B4	5W-30	Kixx GX9 Euro	A3/B4 5W-30
Kixx G1 A3/B4	5W-40	Kixx GX9 Euro	A3/B4 5W-40
Kixx G1 A3/B4	10W-40	Kixx GX9 Euro	A3/B4 10W-40
Kixx G1 A5/B5	5W-30	Kixx GX9 Euro FE	A5/B5 5W-30
Kixx D1 RV	5W-30	Kixx GX9 Diesel	C3 5W-30
Kixx D1 RV	5W-40	Kixx GX9 Diesel	C3 5W-40
		Kixx GX7	SQ 0W-16
		Kixx GX7	SQ 0W-20
		Kixx GX7	SQ 0W-30
		Kixx GX7	SQ 5W-20
		Kixx GX7	SQ 5W-30
		Kixx GX7	SQ 5W-40
		Kixx GX7	SQ 5W-50
		Kixx GX7	SQ 10W-30
		Kixx GX7	SQ 10W-40
		Kixx GX7	SQ 20W-50
Kixx G1 SP	0W-16	Kixx GX7	SP 0W-16
Kixx G1 SP	0W-20	Kixx GX7	SP 0W-20
Kixx G1 SP	0W-30	Kixx GX7	SP 0W-30
Kixx G1 SP	5W-20	Kixx GX7	SP 5W-20
Kixx G1 SP	5W-30	Kixx GX7	SP 5W-30
Kixx G1 SP	5W-40	Kixx GX7	SP 5W-40
Kixx G1 SP	5W-50	Kixx GX7	SP 5W-50
Kixx G1 SP	10W-30	Kixx GX7	SP 10W-30
Kixx G1 SP	10W-40	Kixx GX7	SP 10W-40
Kixx G1 SP	20W-50	Kixx GX7	SP 20W-50
Kixx G1 SN PLUS	0W-20	Kixx GX7	SN Plus 0W-20
Kixx G1 SN PLUS	5W-20	Kixx GX7	SN Plus 5W-20
Kixx G1 SN PLUS	5W-30	Kixx GX7	SN Plus 5W-30
Kixx G1 SN PLUS	5W-40	Kixx GX7	SN Plus 5W-40
Kixx G1 SN PLUS	10W-30	Kixx GX7	SN Plus 10W-30
Kixx G1 SN PLUS	10W-40	Kixx GX7	SN Plus 10W-40
Kixx G1 SN PLUS	20W-50	Kixx GX7	SN Plus 20W-50
Kixx D1 C3	5W-30	Kixx GX7	Diesel 5W-30
Kixx DL-1	0W-30	Kixx GX7 DL-1	0W-30
Kixx DL-1	5W-30	Kixx GX7 DL-1	5W-30
		Kixx GX5	SQ 5W-30
Kixx G SP	5W-30	Kixx GX5	SP 5W-30
Kixx G SN PLUS	10W-40	Kixx GX5	SN Plus 10W-40
Kixx LPG SP	10W-30	Kixx GX5 LPG	SQ 10W-30
Kixx G SL	5W-30	Kixx GX5	SL 5W-30
Kixx G SL	10W-30	Kixx GX5	SL 10W-30
Kixx G SL	10W-40	Kixx GX5	SL 10W-40
Kixx G SL	15W-40	Kixx GX5	SL 15W-40
Kixx D1 Turbo A3/B4	10W-40	Kixx GX5 Diesel	A3/B4 10W-40
Kixx G SJ	5W-30	Kixx GX5	SJ 5W-30
Kixx G SJ	10W-30	Kixx GX5	SJ 10W-30
Kixx G SF	20W-50	Kixx GX5	SF 20W-50
Kixx G SF	10W	Kixx GX5	SF 10W

Heavy Duty Engine Oil

OLD		NEW	
Kixx HDX PAO CK-4/E8	15W-40	Kixx DX9 PAO	CK-4/E8 15W-40
Kixx HDX Euro CK-4/E8	10W-30	Kixx DX9 Euro	CK-4/E8 10W-30
Kixx HDX Euro CK-4/E8	15W-40	Kixx DX9 Euro	CK-4/E8 15W-40
Kixx HDX CK-4/E9	10W-30	Kixx DX9	CK-4/E11 10W-30
Kixx HDX DH-2	10W-30	Kixx DX9 DH-2	CK-4/E11 10W-30
Kixx HDX DH-2	10W-30	Kixx DX9 DH-2	CK-4/E11 15W-40
Kixx HD1 CJ-4/E11	10W-30	Kixx DX7	CJ-4/E11 10W-30
Kixx HD1 CJ-4/E11	10W-40	Kixx DX7	CJ-4/E11 10W-40
Kixx HDX CJ-4/E9	15W-40	Kixx DX7	CJ-4/E11 15W-40
Kixx HD1 CI-4/E7	10W-30	Kixx DX7	CI-4/E7 10W-30
Kixx HD1 CI-4/E7	10W-40	Kixx DX7	CI-4/E7 10W-40
Kixx HD1 CI-4/E7	15W-40	Kixx DX7	CI-4/E7 15W-40
Kixx HD CH-4	10W-30	Kixx DX5	CH-4/E7 10W-30
Kixx HD CH-4	10W-40	Kixx DX5	CH-4/E7 10W-40
Kixx HD CH-4	15W-40	Kixx DX5	CH-4/E7 15W-40
Kixx HD Power CH-4	20W-50	Kixx DX5	CH-4/E7 20W-50
Kixx HD CG-4	10W-40	Kixx DX5	CG-4 10W-40
Kixx HD CF-4	5W-30	Kixx DX5	CF-4 5W-30
Kixx HD CF-4	15W-40	Kixx DX5	CF-4 15W-40
Kixx HD CNG	10W-40	Kixx DX5	CNG 10W-40
Kixx HD CNG	15W-40	Kixx DX5	CNG 15W-40
Kixx G SF	10W	Kixx DX5	CF 10W
Kixx 300	40	Kixx DX5	CF 40
Kixx 300	50	Kixx DX5	CF 50

Motorcycle Engine Oil

OLD		NEW	
Kixx Ultra 4T SN/MA2	10W-30	Kixx MX9 4T	SN 10W-30
Kixx Ultra 4T SN/MA2	10W-40	Kixx MX9 4T	SN 10W-40
Kixx Ultra 4T SN/MA2	20W-50	Kixx MX9 4T	SN 20W-50
Kixx Ultra 4T Scooter SN/MB	5W-40	Kixx MX9 Scooter	SN 5W-40
Kixx Ultra 4T SN/MB	10W-30	Kixx MX9 Scooter	SN 10W-30
Kixx Ultra 4T Scooter SN/MB	10W-40	Kixx MX9 Scooter	SN 10W-40
Kixx Ultra 4T SL/MA2	10W-30	Kixx MX7 4T	SL 10W-30
Kixx Ultra 4T SL/MA2	10W-40	Kixx MX7 4T	SL 10W-40
Kixx Ultra 4T SL/MA2	15W-40	Kixx MX7 4T	SL 15W-40
Kixx Ultra 4T SL/MA2	15W-40	Kixx MX7 4T	SL 20W-40
Kixx Ultra 4T SL/MA2	20W-50	Kixx MX7 4T	SL 20W-50
Kixx Ultra 4T SL/MA2	25W-60	Kixx MX7 4T	SL 25W-60
Kixx Ultra 4T Scooter SL/MB	10W-40	Kixx MX7 Scooter	SL 10W-40
Kixx Ultra 2T FD	-	Kixx MX7 2T	FD
Kixx M 2T FB	-	Kixx MX5 2T	FB

* Effective date : August 1st, 2025