



KIREI
CHEMICAL

TECHNICAL DATA SHEET



KATANA MAKURI E7 10W-40

Synthetic blend motor oil



DESCRIPTION

KATANA Makuri E7 10W-40 – universal SHPD (Super High Performance Diesel) engine oil based on synthetic technology for use in heavy-duty diesel engines (turbocharged or not) of modern trucks, buses, agriculture, road construction and other machines.

KATANA Makuri E7 10W-40 is produced according to the classical Japanese technology in accordance with the latest European (ACEA E7), Japanese (JASO DH-1) and OEM specifications. Suitable for use in all Euro-3 and below engines, as well as part of Euro-4 and Euro-5 engines equipped with Engine Gas Recirculation systems (EGR) and Selective Catalytic Reduction (SCR) exhaust systems. It is not recommended for engines equipped with Diesel

Particular Filters (DPF). Oil has increased drain intervals, high oxidation stability, superior anti-wear and detergent-dispersant properties. Suitable for gasoline engines where the manufacturer specifies the use of motor oils API SL category.



TECHNICAL ADVANTAGES

35%

Higher life-time of
lubricant

40%

Lower toppings of fresh
oil

45%

Better low temperature
pumpability

KATANA Makuri E7 10W-40 has the increased total base number (TBN), which is on 30-40% higher than the standard ACEA E7 (API CI-4) motor oil has. It makes it possible to increase the oil changing intervals and to improve resistance to high sulfur fuel in regions with unstable quality (less than 5000 ppm).

Thanks to the use of synthetic base oils with low volatility (test NOACK at 250°C) KATANA Makuri E7 10W-40 is characterized by low evaporation at high temperatures, which reduces the amount of toppings of new portions of fresh oil from 2 to 5 liters, depending on the operating conditions, and changing intervals. It increases the economic efficiency on 5-12%.

The synthetic base oils content in KATANA Makuri E7 10W-40 oil is on 10-15% higher than conventional semi-synthetic 10W-40 oils. This guarantees excellent low-temperature characteristics (MRV Pumpability Test and cold crankcase start in CCS test). These parameters of KATANA Makuri E7 10W-40 is close to synthetic 5W-40 oils.



SPECIFICATIONS



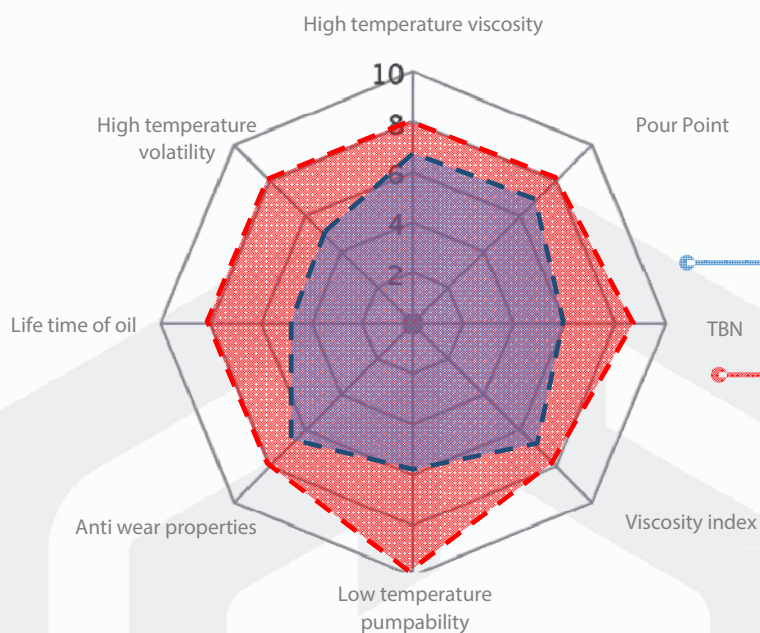
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KATANAMakuriE7 10W-40 fully satisfies and is recommended to replace following types of motor oils: ACEA E7-08, API CI-4/CH-4/CF/SL, JASO DH-1, Volvo VDS-2/ VDS-3, MB 228.3, MAN 3275, Renault RLD-2, MTU Type 2.0, Mack EO-M Plus, Cummins CES 20076/20077/20078, Caterpillar ECF-1a, Deutz DCQ-III.



TECHNICAL PARAMETERS

Parameter	Test method	Typical API CI-4 10W-40 motor oil	KATANAMakuri E7 10W-40
Kinematic viscosity at 40°C, cSt	ASTM D445	95	98
Kinematic viscosity at 100°C, cSt	ASTM D445	14.0	14,6
Viscosity index	ASTM D2270	150	155
MRV viscosity at -30°C, cP	ASTM D4684	60 000	28 000
TBN, mg KOH/g	ASTM D2896	10	14
Flash point in open cup, °C	ASTM D92	220	230
Noack evaporation loss, %	ASTM D5800	15	11
Pour point, °C	ASTM D97	-35	-40



Physical and chemical characteristics are typical for this product. These parameters are subject to change without notification, however, full compliance with the product specifications is guaranteed.

Shelf life: 5 years from date of manufacture. Store unopened in a cool, dry, well-ventilated and away from children. Avoid direct sunlight, heat sources and strong oxidizing agents. Material Safety Data Sheet (MSDS) for professional users available on request.

Developed in Osaka, Japan. The quality management system in the production of oils KATANA corresponds to the requirements of ISO 9001. The system of environmental safety in the production of oils KATANA corresponds to the requirements of ISO 14001.