

TES OIL GXL-193B

High ash gas engine oil for medium and large engines

The total energy system (TES) with the gas engine is the system to supply electricity and power by the gas engine which uses city gas as fuel, and performs hot water supply and the air-conditioning in facilities using the exhaust heat. Gas engine oil used for this system is always exposed to the severe condition of the high temperature. **TES Oil GXL-193 B** is the most suitable oil for gas engine TES since it's thermal and oxidation stability is excellent. It is also a high performance gas engine oil with good stability against NOx and low temperature startability.

● Special Features

1. Outstanding Thermal & Oxidation Stability

In the case of a gas engine, the lubricant is deteriorated by the oxidation easily because it is exposed to high temperatures for a long time.

TES Oil GXL-193 B is excellent in thermal and oxidation stability and can extend the drain interval. As a result, it contributes to reducing the maintenance cost of the engine.

2. Excellent stability against NOx

NOx contained in the blow-by gas causes the formation of sludge due to nitrogen oxide (nitrated) and the viscosity increase of the oil.

TES Oil GXL-193 B has excellent stability against NOx and thus suppresses promotion of oil degradation by nitration.

3. Other features

TES Oil GXL-193 B has high viscosity index, and thus viscosity change by temperature is small. As a result, it demonstrates superior engine startability at low temperatures and superior engine wear protection at high temperatures due to oil film retention. Moreover, its good water separability and rust preventive performance suppresses the occurrence of emulsion sludge caused by blow-by gas with a large amount of water.

● Oil exchange period

Please follow the instruction manual of the engine manufacturer.

● Containers

200-liter drum, 20-liter pail can

● Typical properties of TES Oil GXL-193 B

SAE viscosity grade	20W-50	
Color (ASTM)		L3.0
Density (15 °C)	g/cm ³	0.886
Kinematic Viscosity (40 °C)	mm ² /s	146
	(100 °C) mm ² /s	17.1
Viscosity Index		127
CCS Viscosity(-15 °C)	mPa·s	6400
Flash Point (COC)	°C	250
Pour Point	°C	-25.0
Acid Number	mgKOH/g	1.72
Base Number (ASTM D4739)	mgKOH/g	8.28
Sulfated Ash	mass%	1.01
Rust prevention (distilled water, 60°C, 24 h)		No rust

Note: The typical properties may be changed without notice.
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Handling Precautions

▼ Follow these precautions when handling this product.

Composition :	Base Oil(s), Additives
Hazard pictograms:	Not applicable
Signal word:	Not applicable
Hazard Statement:	Harmful to aquatic life Harmful to aquatic life with long lasting effects
Precautionary Statements: Prevention	<ul style="list-style-type: none">• Do not handle until all safety precautions have been read and understood.• Wear protective gloves/protective clothing/eye protection/face protection.• Do not allow the eyes to become exposed to the product. Do not swallow the product.• Avoid release to the environment.• Wash hands thoroughly after handling.• Do not eat, drink or smoke when using this product.
Response	<ul style="list-style-type: none">• IF SWALLOWED: Immediately call a POISON CENTER/doctor.• IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.• If the eyes are exposed to the product: Rinse the eyes with plenty of running water and immediately contact a physician.• IF ON SKIN: Wash with plenty of soap and water.
Storage	<ul style="list-style-type: none">• The product must be stored in a cool, well-ventilated location where it will not be exposed to direct sunlight.• Containers that have been opened must be tightly sealed.
Disposal	<ul style="list-style-type: none">• Dispose of contents/container in accordance with local/regional/national/international regulations.• If there are any doubts about proper methods of handling the product, contact the point of purchase before proceeding with usage.