

# DIESEL GRAND DX 5W-30

## Fuel-saving diesel engine oil for DPF-equipped vehicles

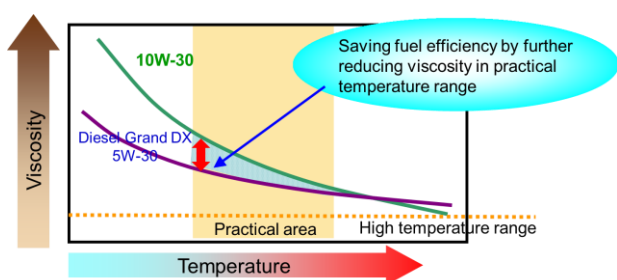
Energy conservation, environmental consciousness such as reduction of carbon dioxide emission are rising, and demand for fuel-saving oil is increasing more and more in heavy duty diesel engines. On the other hand, particulate matter (PM) and nitrogen oxides (NOx) emitted from diesel engines are considered to be one of the causes of air pollution. New vehicles sold in Japan are equipped with particulate matter reduction devices such as DPF (Diesel Particulate Filter) or NOx reduction device such as NOx storage reduction catalyst and urea SCR system to clear emission standards.

**Diesel Grand DX 5W-30** formulated with synthetic base oil has excellent fuel saving performance due to the viscosity characteristic of 5W-30. It has good anti-wear performance and keeps engine clean. Furthermore, it is designed not to damage exhaust gas after-treatment (DPF).

### ● Special Features

#### 1. Excellent fuel saving performance

**Diesel Grand DX 5W-30** has oil film thickness equal to or higher than that of 10W-30 oil at high temperature, and it maintains lower viscosity at practical use temperature, because it uses high performance synthetic base oil with high viscosity index. Due to this excellent temperature-viscosity characteristic, it reduces stirring resistance of the oil in practical temperature range and it will cause high fuel economy.



#### 2. Passed JASO M355:2017 standard "DH-2F"

**Diesel Grand DX 5W-30** is a diesel engine oil that acquired the latest standard "JASO DH-2F" which meets fuel-saving performance required on top of the conventional JASO DH-2 standard.

#### 3. Reduction of influence on exhaust gas after-treatment device

The high-performance synthetic base oil of **Diesel**

**Grand DX 5W-30** does not contain sulfur, which is a poisoning element of the NOx storage reduction catalyst. Therefore, by minimizing sulfur in the oil, poisoning of the exhaust gas reduction catalyst is greatly suppressed. By adjusting sulfated ash content to 1 mass% of DH-2 standard, back pressure is reduced by less filter clogging and thus fuel efficiency of **Diesel Grand DX 5W-30** is improved in comparison with conventional high sulfated ash oil (about 1.8 mass%).

#### 4. Extended oil drain interval

**Diesel Grand DX 5W-30** improves oxidation stability by using high-performance synthetic base oil, and can extend the oil drain interval longer than conventional oil. Viscosity increase due to soot contamination is reduced by adding properly selected dispersants.

#### 5. Extended engine life

**Diesel Grand DX 5W-30** prevents wear of each part of the engine, adhesion of carbon and sludge, and prolongs engine life, because it is excellent in anti-wear performance and engine cleanliness. **Diesel Grand DX 5W-30** can be safely used not only for vehicles equipped with DPF but also for non-mounted vehicles.

### ● Applications

For heavy-duty trucks, buses and other diesel engines, especially for DPF-installed vehicles

### ● Containers

200-liter drums and 20-liter cans.

● **Typical Properties of Diesel Grand DX 5W-30**

JASO API SAE Grade		DH-2F CF-4 class 5W-30	DH-2F performance criteria
Color (ASTM)		L3.5	
Density	g/cm <sup>3</sup>	0.846	
Viscosity (40 °C )	mm <sup>2</sup> /s	55.68	
Viscosity (100 °C )	mm <sup>2</sup> /s	10.42	
Viscosity Index		179	
Flash Point(COC)	°C	232	
Pour Point	°C	-42.5	
Acid Number	mgKOH/g	1.51	
Base Number(ASTM D664)	mgKOH/g	7.15	5.5min
Sulfated Ash	mass%	0.92	1.0±0.1
Elements Phosphorus	mass%	0.07	0.12max
Sulfur	mass%	0.20	0.5max

Note: The typical properties may be changed without notice. (February 2019)



## Handling Precautions

▼ Follow these precautions when handling this product.

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