

PRODUCT DESCRIPTION

PowerDrive DL-1 5W-30 is a high-performance low emission fully synthetic engine oil formulated for light duty diesel vehicles equipped with after treatment device such as Diesel Particulate Filter (DPF) or catalyst. Extends DPF life and maximizes the catalyst performance to improve engine efficiency and power. Low viscosity and excellent friction properties to allow optimum fuel savings in all driving conditions. Ideal for use in Japanese vehicles requiring a 5W30 JASO DL-1 engine oil.

PowerDrive DL-1 5W-30 provides outstanding high temperature protection and high oil film strength to ensure engine protection during the oil service life. Protects engine against soot, deposit build up, scuffing and excessive oil consumption.



PowerDrive DL-1 5W30 is enhanced with unique anti-friction technology, ZFM™ (Zero Friction Molecular), to considerably reduce friction and wear of highly loaded engine parts that are exposed to intensive duty cycles and high operating temperatures.

Excellent oxidation control, better wear protection, minimized sludge formation, superior piston cleanliness and ultimate performance for an extended engine life.

APPLICATION

Recommended for all types of light duty diesel engines requiring a low ash 5W-30 JASO DL-1 engine oil. For passenger cars, SUVs, CUVs, vans and pick-up trucks.

Compatible in vehicles fitted with Diesel Particulate Filters (DPF) or catalyst.

Not suitable for use in heavy duty diesel engines. Not for gasoline engines.

WARRANTY

PowerDrive DL-1 5W-30 meets or exceeds the OEM's warranty requirements of vehicles where JASO DL-1 is required. TOTACHI® guarantees full compliance on the written specifications indicated on product labels.

CUSTOMER BENEFITS

- **Maximized Oil Drain Interval**
Excellent dispersancy control, good cleaning performance and improved oxidation stability to prevent quick deterioration of oil during the oil service life.
- **Extends After Treatment System Life**
Low sulfur content to prevent DPF clogging and catalyst poisoning.
- **Enhanced Fuel Efficiency**
Good oil flow during engine start-up and enhanced frictional properties that contribute to fuel savings.
- **Prolongs Engine Life**
High performance components and highly share stable to provide exceptional wear protection and prevents oils degradation for a longer engine life.
- **Compatibility with ECS (Emission Control System)**
Extends the life of various emission control systems such as DPF and other diesel after treatment devices.



MEETS SPECIFICATIONS & REQUIREMENTS OF:

- JASO DL-1

Suitable for use in various light duty diesel vehicles such as Mazda, Nissan, Toyota, Mitsubishi, Lexus, other OEMs requiring a 5W-30 JASO DL-1 engine oil.

Before using this product, ensure it is consistent with OEM's recommendations for the equipment operating conditions and customer's maintenance practices.

TYPICAL TEST DATA

| CHARACTERISTICS | UNITS | VALUES | STANDARDS |
|-----------------------------|----------|--------|------------|
| SAE Grade | - | 5W-30 | SAE J300 |
| Kinematic viscosity at: | | | |
| 40 °C | cSt | 52.58 | ASTM D445 |
| 100 °C | cSt | 9.5 | ASTM D445 |
| Viscosity index | - | 166 | ASTM D2270 |
| Cranking viscosity at -30°C | mPa-s | 4562 | ASTM D5293 |
| Color | - | L3.0 | ASTM D1500 |
| Flash point | °C | 228 | ASTM D92 |
| Pour point | °C | -36 | ASTM D6892 |
| Density at 30 °C | kg/L | 0.8399 | ASTM D4052 |
| Total Base Number | mg KOH/g | 3.6 | ASTM D2896 |

STORAGE AND HANDLING GUIDELINES

- Avoid exposing products to direct sunlight.
- Store in cool and dry places. Avoid exposing products to moisture.
- It is highly recommended to store drums indoors or under cover on pallets and racks.

HEALTH, SAFETY & ENVIRONMENT PROTECTION

Information on health, safety and environment protection is described in the product Safety Data Sheet (SDS). The SDS file contains details on potential hazards, precautions and first aid measures, as well as information on environmental impact and disposal of used products.

TOTACHI INDUSTRIAL CO. LTD. disclaims any liability in case the product is used with violation of these instructions and warnings, or it is not used for its intended purpose. Before using product other than intended, consult your local TOTACHI® distributor.