



E-FORCE UHPD

SYNTHETIC/SEMI SYNTHETIC

PRODUCT DESCRIPTION:

E-FORCE UHPD is a synthetic, high-performance engine oil specifically designed for all on-highway heavy-duty diesel applications and is also compatible with most gas engines. Utilizing advanced "mid-SAPS" technology compliant with Euro VI standards, E-FORCE UHPD promotes extended engine life while maintaining the efficiency of after-treatment systems, including Diesel Particulate Filters (DPFs).

APPLICATION:

Heavy-duty diesel engines including Euro V/VI modern low emissions vehicles, utilizing technologies such as Diesel Particulate Filter (DPF), Selective Catalytic Reduction (SCR), Continuously Regenerating Traps (CRT), Diesel Oxidation Catalysts (DOC) and Exhaust Gas Recirculation (EGR), heavy-duty diesel engines using low Sulphur diesel fuels and many biodiesel fuel formulations, Naturally Aspirated and Turbo-Charged Diesel Powered Equipment, On-Highway Short-Haul and Long-Haul Trucks and Buses, Off-Highway Mining, Construction and Agriculture Equipment.

FEATURES & BENEFITS:

- Performs well in low emission diesel engines
- Excellent soot handling capabilities
- Exemplary thermal stability and oxidation control
- Provides anti-wear and anti-scaff capabilities
- Contains extended TBN reserves
- Excellent cold startup
- Has stay-in-grade sheer stability
- Extended drain capabilities

PERFORMANCE MEET OR EXCEEDS:

- API CJ-4
- Caterpillar ECF-3
- Volvo VDS-4
- Cummins CES 20081
- Mack EO-O PP
- ACEA E6/E9/E11
- Deutz DQC IV-10 LA
- Renault RLD3
- Scania Low Ash, LDF-4 (5W-30)
- JASO DH-2
- DTRF 15B1101/15C110/235.28
- MAN M3271/M3477/M3575
- MAN M3677/M3691 (5W-30)
- DDC 93K218
- MTU Type 2.1/3.1
- VOITH Class B

TYPICAL PROPERTIES:

| PARAMETERS | ASTM | UNIT | E-FORCE UHPD | | | |
|------------------------------------|-------|----------|------------------|------------------|------------------|------------------|
| | | | 0W-40 | 5W-40 | 10W-30 | 10W-40 |
| Grade | | | 0W-40 | 5W-40 | 10W-30 | 10W-40 |
| Kinematic Viscosity @ 104°F /40°C | D7042 | cSt | TBR | TBR | TBR | TBR |
| Kinematic Viscosity @ 212°F /100°C | D7042 | cSt | 15 | 15 | 11.7 | 15.4 |
| Viscosity Index (min) | D2270 | - | 170 | 160 | 145 | 145 |
| Density@15°C/ 60°F | D4052 | g/cm3 | TBR | TBR | TBR | TBR |
| Flash Point (min) | D92 | °C | 220 | 220 | 220 | 220 |
| Pour Point (max) | D97 | °C | -39 | -39 | -36 | -36 |
| TBN | D2896 | mg KOH/g | 12.84 | 12.84 | 12.84 | 12.84 |
| CCS | D5293 | m.Pa.S | <6200 (-35°C) | <6600 (-30°C) | <7000 (-25°C) | <7000 (-25°C) |

DISCLAIMER: The test data presented above is indicative and not a strict specification, as it may vary within acceptable production tolerances. Internal reserves the right to update or modify this test data. For the most accurate and current information, please refer to the latest version of this Technical Data Sheet (TDS).

HEALTH & SAFETY, ENVIRONMENT:

Continuous or repeated exposure to oil may lead to skin problems. Avoid contact with the oil. In case of contact, wash thoroughly with soap and water. Do not dispose of used oil in drains or the environment. Dispose of it at an authorized used oil collection point. For additional safety information, please refer to the MSDS available on our website at www.internal.net.

PROTECT THE ENVIRONMENT:

Take used oil to an authorized collection point. Comply with local regulation. Do not discharge into drains, soil or water.