



E-FORCE

FULLY SYNTHETIC

PRODUCT DESCRIPTION:

E-FORCE is a fully synthetic, high-performance heavy-duty diesel engine oil designed to extend engine life and enable extended drain intervals, even under severe operating conditions. Its high Total Base Number (TBN) effectively counteracts the damaging effects of sulfur present in low-quality diesel fuel. E-FORCE delivers outstanding performance in modern low-emission engines while also supporting the reliable operation of older, well-maintained engines.

APPLICATION:

It is recommended for use in super high-performance diesel applications, including modern low emission engine designs with Exhaust Gas Recirculation (EGR). These applications include on-highway engines operating in both high speed / high load and stop-and-go conditions, off-highway engines operating in severe low speed / heavy load conditions, and all diesel-powered equipment from American, European, and Japanese equipment manufacturers.

FEATURES & BENEFITS:

- Outstanding thermal and oxidation stability
- One engine oil for mixed fleet operations
- Exceptional low temperature pumpability
- Helps towards long life of critical wear surfaces
- Long drain capability and Fuel economy potential

PERFORMANCE MEET OR EXCEEDS:

- API CI-4/SL
- ACEA E7, A3/B3/B4
- DTFR 15B110 / 229.1
- MAN M3275-1
- Volvo VDS-3
- Deutz DQC III-10
- JASO DH1
- MACK EO-N
- Cummins CES 20076/20077/78
- Global DHD-1
- Renault RLD-2
- MTU Type 2
- Allison C4
- Caterpillar ECF 1a, ECF 2
- DDC 93K215

TYPICAL PROPERTIES:

PARAMETERS	ASTM	UNIT	E-FORCE			
			OW-30	OW-40	5W-30	5W-40
Grade			OW-30	OW-40	5W-30	5W-40
Kinematic Viscosity @ 104°F / 40°C	D-7042	cSt	TBR	TBR	TBR	TBR
Kinematic Viscosity @ 212°F / 100°C	D-7042	cSt	11.9	15.1	11.8	15
Viscosity Index (min)	D-2270	-	160	170	160	160
Density@15°C/ 60°F	D-4052	g/cm3	TBR	TBR	TBR	TBR
Flash Point (min)	D-92	°C	220	220	220	220
Pour Point (max)	D-97	°C	-39	-39	-39	-39
TBN	D-2896	mg KOH/g	11	11	11	11
CCS, (°C)	D-5293	m.Pa.S	<6200 (-35°C)	<6200 (-35°C)	<6600 (-30°C)	<6600 (-30°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.