

HDDEO

Technical Data Sheet



E-FORCE X1

MINERAL

PRODUCT DESCRIPTION:

E-FORCE X1 is a heavy-duty mineral diesel engine oil designed with a precise blend of high-quality base oils and advanced additives. It offers reliable protection against rust and corrosion while delivering excellent thermal and oxidation stability. By effectively controlling sludge build-up and deposits, E-FORCE X1 helps extend equipment life and reduces maintenance costs, ensuring optimal engine performance.

APPLICATION:

Recommended for wide range of turbo-charged or naturally aspirated diesel engines, generators, trucks, construction machinery, passenger cars or mixed car group comprising diesel and gasoline cars. It is recommended for automotive diesel engine of passenger cars and light commercial vehicles where the OEM recommends API CD/SF or earlier specification.

FEATURES & BENEFITS:

- · Good protection against rust and corrosion
- Thermal and oxidation stability
- · Controls sludge build up and deposits
- · Long equipment life and reduced maintenance cost.

PERFORMANCE MEET OR EXCEEDS:

- API CD/SF
- MIL-L-2104D
- CAT TO-2

TYPICAL PROPERTIES:

PARAMETERS	ASTM	UNIT	E-FORCE X1					
Grade			15W-40	20W-50	20W-60	40	50	60
Kinematic Viscosity @ 104°F /40°C	D7042	cSt	TBR	TBR	TBR	TBR	TBR	TBR
Kinematic Viscosity @ 212°F /100°C	D7042	cSt	15.4	20.3	24.2	15.5	20.2	24.2
Viscosity Index (min)	D2270	-	135	120	120	95	95	95
Density@15°C/ 60°F	D4052	g/cm ³	TBR	TBR	TBR	TBR	TBR	TBR
Flash Point (min)	D92	°C	220	220	220	220	220	220
Pour Point (max)	D97	°C	-33	-24	-24	-9	-9	-9
TBN	D2896	mg KOH/g	7	7	7	7	7	7
CCS	D5293	m.Pa.S	<7000 (-20°C)	<9500 (-15°C)	<9500 (-15°C)	-	-	-

DISCLAIMER: The test data presented above is indicative and not a strict specification, as it may vary within acceptable production tolerances. Internol 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.internol.net.

PROTECT THE ENVIRONMENT:

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