



## E-FORCE X9

### MINERAL

#### PRODUCT DESCRIPTION:

E-FORCE X9 is a high-performance engine oil engineered to deliver reliable protection for diesel engines operating under severe conditions in both on- and off-highway applications. Formulated with premium base oils and enhanced by an advanced additive system, it ensures excellent control of oil thickening caused by soot accumulation and high-temperature oxidation. E-FORCE X9 also helps reduce oil consumption and provides superior wear protection, promoting long engine life and optimal performance.

#### APPLICATION:

These heavy-duty engine oils are recommended for all types of diesel and gasoline engines where the manufacturer specifies the API service CH-4/SJ. They are especially suited for use in low temperature environments where extreme pumpability properties are required. These Oils are also suitable for on-road and off-road applications, including equipment that are exposed to extreme low temperature operations. This oil is suitable for use in moderate to high Sulphur content fuel.

#### FEATURES & BENEFITS:

- Improved oxidation stability to minimize deposit formation.
- Higher TBN to extend protection from acids caused by combustion.
- Better protection against valve train wear.
- Improved low temperature performance.
- Potential fuel economy improvement compared to conventional CH-4 heavy duty engine oils.

#### PERFORMANCE MEET OR EXCEEDS:

- API CH-4/SJ
- DTFR 15B110
- MAN 3275
- ACEA E7, A3/B3/B4
- VOLVO VDS-2
- Renault RLD2
- MTU Type 2
- JASO DH1
- Mack EO-M/EO-L
- Cummins CES 20076
- DFS 93K215

#### TYPICAL PROPERTIES:

PARAMETERS	ASTM	UNIT	E-FORCE X9					
			15W-40	15W-50	20W-50	20W-60	40	50
Grade			TBR	TBR	TBR	TBR	TBR	TBR
Kinematic Viscosity @ 104°F /40°C	D7042	cSt	TBR	TBR	TBR	TBR	TBR	TBR
Kinematic Viscosity @ 212°F /100°C	D7042	cSt	15.3	15.2	19.6	24.1	15.5	19
Viscosity Index (min)	D2270	-	135	135	120	120	95	95
Density@15°C/ 60°F	D4052	g/cm <sup>3</sup>	TBR	TBR	TBR	TBR	TBR	TBR
Flash Point (min)	D92	°C	220	220	220	220	220	220
Pour Point (max)	D97	°C	-33	-33	-24	-24	-9	-9
TBN	D2896	mg KOH/g	10	10	10	10	10	10
CCS	D5293	m.Pa.S	<7000 (-20°C)	<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. 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](http://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.