



EFORCE X3 MINERAL

PRODUCT DESCRIPTION:

EFORCE X3 mineral engine oil is specially formulated for mixed fleet operations, offering versatility for both diesel engines and naturally aspirated gasoline engines in trucks and passenger cars. Blended with a carefully optimized combination of premium base oils and an advanced additive system, it is designed to perform reliably under harsh driving conditions. EFORCE X3 delivers excellent thermal stability at high temperatures, ensuring consistent protection and performance.

APPLICATION:

Recommended for modern heavy-duty engines, wide range of turbo-charged or naturally aspirated diesel engines, generators, trucks, construction cars, 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 CF or earlier specification.

FEATURES & BENEFITS:

- Provides high thermal stability and oil oxidation resistance.
- High control over wear, rust and corrosion to ensure long life of engine parts.
- Provide a high standard of piston cleanliness.
- Improved fuel economy and filterability
- Longer maintenance intervals and oil change period.
- Excellent fluidity at low temperatures ensures good starting.
- Properly balanced detergency and dispersancy ensures a clean engine.

PERFORMANCE LEVELS / MEETS OR EXCEEDS:

- CF/SF
- ACEA E2-96/A3/B3
- MB 228.2
- MIL-L-2104E
- CAT TO-2
- MAN 270
- MTU TYPE 1
- ALLISON C4

TYPICAL PROPERTIES:

PARAMETERS	ASTM	UNIT	EFORCE X3							
			15W-40	15W-50	20W-50	20W-60	30	40	50	60
Grade			TBR	TBR	TBR	TBR	TBR	TBR	TBR	TBR
Kinematic Viscosity @ 104°F / 40°C	D7042	cSt	TBR	TBR	TBR	TBR	TBR	TBR	TBR	TBR
Kinematic Viscosity @ 212°F / 100°C	D7042	cSt	15.4	15.2	20.5	24.2	11.2	15.5	20.5	24.1
Viscosity Index (min)	D2270	-	135	135	120	120	95	95	95	95
Density@15°C/ 60°F	D4052	g/cm ³	TBR	TBR	TBR	TBR	TBR	TBR	TBR	TBR
Flash Point (min)	D92	°C	220	220	220	220	220	220	220	220
Pour Point (max)	D97	°C	-33	-33	-24	-24	-9	-9	-9	-9
TBN	D2896	mg KOH/g	8	8	8	8	8	8	8	8
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. 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.