

HDDEO

Technical Data Sheet



## E-FORCE FA-4 FULLY SYNTHETIC / SEMI SYNTHETIC

#### PRODUCT DESCRIPTION:

E-FORCE FA-4 represents cutting-edge lubricant technology designed for fuel-efficient engines equipped with emission aftertreatment systems requiring API FA-4 specifications. This advanced formulation is tailored for on-highway use, including select 2017 greenhouse gas-compliant diesel engines, to support reduced CO2 emissions and enhanced fuel economy. It is also compatible with EPA 2010-compliant low-emission diesel engines featuring SCR (Selective Catalytic Reduction), DPF (Diesel Particulate Filter), and EGR (Exhaust Gas Recirculation) systems.

# APPLICATION:

Recommended for heavy duty diesel engines with turbo-charger, direct injection and low emission designs.

#### FEATURES & BENEFITS:

- Exceptional Soot dispersancy and wear control.
- · Optimum DPF (Diesel Particulate Filter) life.
- Exceptional cold start protection.
- · Excellent shear stability.
- Improved oxidation stability.
- · Best-in-class engine cleanliness.

## PERFORMANCE MEET OR EXCEEDS:

SAE GRADES	5W-30	10W-30
API	FA-4/SN	FA-4/SN
JASO	DH-2	DH-2
MB	228.61	228.61
Cummins	20087	20087
DDC	93K223	93K223

#### TYPICAL PROPERTIES:

PARAMETERS	ASTM	UNIT	E-FORCE FA-4	
Grade			5W-30	10W-30
Kinematic Viscosity @ 104°F /40°C	D7042	cSt	TBR	TBR
Kinematic Viscosity @ 212°F /100°C	D7042	cSt	10.0	9.9
(Viscosity Index (min	D2270	-	160	145
Density@15°C/ 60°F	D4052	g/cm <sup>3</sup>	TBR	TBR
(Flash Point (min	D92	C°	220	220
(Pour Point (max	D97	C°	-39	-36
TBN	D2896	mg KOH/g	10	10
CCS	D5293	m.Pa.S	(-30°C) 6600>	(-25°C) 7000>

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.