PRODUCT DATA SHEET

Full Synthetic Heavy-Duty Engine Oils
SAE 5W-30, 10W-30, 5W-40, 10W-40, 15W-40; API CK-4/SN

Product Description:

Viscosity1 Full Synthetic Heavy-Duty Engine Oils, SAE 5W-30, SAE 10W-30, SAE 5W-40, SAE 10W-40 and SAE 15W-40, API CK-4/SN are formulated with synthetic base oils and a premium additive package. These oils are designed for use in high-speed four-stroke cycle diesel engines designed to meet 2017 model year on-highway and Tier 4 non-road exhaust emission standards as well as for previous model year diesel engines. These oils are especially effective at sustaining emission control system durability where particulate filters and other advanced aftertreatment systems are used. **Viscosity1 Full Synthetic Heavy-Duty Engine Oils** API Service CK-4/SN provide enhanced protection against oil oxidation, viscosity loss due to shear, and oil aeration as well as protection against catalyst poisoning, particulate filter blocking, engine wear, piston deposits, degradation of low- and high-temperature properties, and soot-related viscosity increase. In addition to API CK-4, these oils exceed the performance criteria of CJ-4, CI-4 with CI-4 PLUS, CI-4, and CH-4 and can effectively lubricate engines calling for those API Service Categories. When using this product in conjunction with fuel containing higher than 15 ppm of sulfur, consult the engine manufacturer for service interval recommendations

Typical Properties:*

SAE J300 Viscosity Grade	***5W-30***	***10W-30***	***5W-40***	***10W-40***	***15W-40***
Appearance, Visual	Amber, Transparent, Liquid				
Viscosity @ 40°C, cSt, ASTM D445	61.25	73.7	86.8	91.75	104.45
Viscosity @ 100°C, cSt, ASTM D445	10.8	11.5	14.5	14.5	15.3
Viscosity Index, ASTM D2270	170	150	175	165	155
CCS Apparent Viscosity, cP, ASTM D5293	5,200@-30°C	5,400@-25°C	5,600@-30°C	5,800@-25°C	5,400@-20°C
MRV Apparent Viscosity, cP, ASTM D4684	18,000@-35°C	17,600@-30°C	22,000@-35°C	21,000@-30°C	17,000@-25°C
Flash Point, °C, ASTM D92	215	218	218	218	220
Pour Point, °C, ASTM D97	-42	-40	-40	-40	-38
Total Base Number, mg KOH/g, ASTM D2896	9	9	9	9	9

The values shown are typical of current production. Some are controlled in the manufacturing process, while other are not. All of them may vary within tolerable ranges.

Suitable for Use:

API CK-4, CJ-4, CI-4 Plus, CI-4, CH-4
Cummins CES 20086
Damiler MB 228.31
Deutz DQC III-10 LA

API SN, SM, SJ, SF
Mack EOS 4.5
Volvo VDS-4.5

ACEA E9-12
DDC 93K222
Renault Trucks RLD-4

Ford WSS-M2C171-F1
Caterpillar ECF-3
MTU Type 2.1