



Full Synthetic Diesel Engine Oil



Mighty Engine Guard Full Synthetic Diesel Engine Oil is designed specifically to address the heavy duty industry demands for lighter viscosity oils. Engine Guard Full Synthetic Diesel Engine Oil effectively balances durability, extending drain intervals and protects emission control devices while providing superior engine protection. These oils retain viscosity, friction and anti-wear benefits, in spite of severe engine temperatures while delivering greater horsepower and improved fuel economy. This product and grade is a fuel economy and mixed fleet engine oil recommended for naturally aspirated and turbocharged four-stroke diesel engines in which the API CK-4 service categories are recommended. It is formulated for engines operating under severe service and a wide range of cold and hot temperatures.

Features and Benefits



- ✓ Our best cold temperature performance.
- ✓ It is backward compatible for CJ-4 and older API service categories
- ✓ Superior extended drain capability
- ✓ Meets or exceeds the requirements of OEMs
- ✓ Enhanced friction reduction
- ✓ Better oxidation and deposit control
- ✓ Formulated with higher starting TBN (10)
- ✓ Unsurpassed wear protection



Industry/OEM Specifications and Licenses

Available Package Sizes

Viscosity

Gallons

Pails

Drums

Totes

5W/40 CK-4 Full Synthetic



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Typical Properties

Viscosity Grade

Calcium, wt. %	ASTM D5185	0.082
Cold Cranking Simulator at (°C), cP	ASTM D5293	6535 (-30)
Color	ASTM D1500	2.5
Flash Point °C	ASTM D92	225
Flash Point °F	ASTM D92	437
Gravity, °API	ASTM D287	33.57
High Temperature / High Shear Vis at 150°, cP	ASTM D5481	3.5
Magnesium, wt. %	ASTM D5185	0.116
Molybdenum, wt. %	ASTM D5185	0.007
Nitrogen, wt. %	ASTM D4629	0.124
Noack Volatility, % loss	ASTM D6375	12
Phosphorus, wt. %	ASTM D5185	0.115
Pour Point °C (°F)	ASTM D5950	-45°C (-49°F)
Pumping Viscosity at (°C), cP	ASTM D4684	21,113 (-35)
Specific Gravity @ 60°F (15.6°C)	ASTM D4052	0.8572
Sulfated Ash, wt. %	ASTM D874	0.99
Sulfur, wt. %	ASTM D4951	0.314
TBN, mgKOH/g	ASTM D2896	10
Viscosity @ 100°C cSt	ASTM D445	14.76
Viscosity @ 40°C cSt	ASTM D445	87.75
Viscosity Index	ASTM D2270	177
Zinc, wt. %	ASTM D5185	0.127

Industry/OEM Specifications

Title

API CK-4	Approved
API SN	Approved
Ford WSS-M2C171-F1	Meets Requirements
ACEA E9, E7, E4, E2	Meets Requirements
API C1-4 Plus, C1-4, CH-4, CG-4, CF-2, CF	Meets Requirements
API CJ-4	Meets Requirements
API SJ, SH, SG, SF	Meets Requirements
API SL	Meets Requirements
API SM	Meets Requirements
CAT ECF-3, ECF-2, ECF-1-a	Meets Requirements
Chrysler/Fiat MS-10902	Meets Requirements
CID A-A-52306, MIL-PRF-2104G	Meets Requirements
Cummins 20086	Meets Requirements
Cummins CES 20081, 20077, 20076	Meets Requirements
Detroit Diesel 93K128, 93K215, 93K214	Meets Requirements
Detroit Diesel 93K222	Meets Requirements
Ford WSS-M2C171-E	Meets Requirements
Global DHD-1	Meets Requirements
JASO DH-2	Meets Requirements
Mack E0-0 Premium Plus, E0-N Premium Plus 03, E0-M Plus, and prior	Meets Requirements
Mack EOS-4.5	Meets Requirements
MAN 3275, 270	Meets Requirements
MAN 3575	Meets Requirements
MB 228.3, 228.31	Meets Requirements
MTU 2.1	Meets Requirements
MTU Type I, Type II	Meets Requirements
Renault RLD-4	Meets Requirements
Volvo VDS-4, 3, 2	Meets Requirements
Volvo VDS-4.5	Meets Requirements
Allison C-4	Suitable for Use

*Check for availability.

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