



LUBRICANTS

Guardol XT® Full Synthetic Diesel Engine Oil

Phillips 66® Guardol XT Full Synthetic Diesel Engine Oil is a premium quality, full-synthetic engine oil developed for use in 4-stroke cycle diesel engines operating under severe duty service or extreme temperature conditions. It meets API CK-4 performance requirements for use in modern low-emission engines designed to meet 2007 and later EPA on-highway exhaust emissions standards, and is backward serviceable for use in older diesel engines. It is specially formulated for compatibility with exhaust aftertreatment systems using diesel particulate filters (DPF), diesel oxidation catalysts (DOC) and/or selective catalytic reduction (SCR). The full-synthetic formulation provides excellent low-temperature properties for better performance in harsh winter climates.

Guardol XT is formulated with synthetic base stocks and an advanced low-SAPS additive package to provide outstanding wear protection, soot control and bearing corrosion protection in both conventional and EGR-equipped diesel engines. It has excellent soot dispersancy to protect against abrasive wear and soot-induced oil thickening, and to ensure good low-temperature pumpability even with highly soot-laden oil. The full-synthetic formulation provides enhanced oxidation resistance and thermal stability at high temperatures and improved low-temperature properties compared with conventional or synthetic blend formulations.

Guardol XT meets or exceeds the performance requirements of API Service Categories CK-4 and SN, and is approved under the latest OEM specifications for use in low-emission diesel engines. It is backward serviceable for use where earlier API "C" category engine oils, or the concurrent earlier OEM specifications, are specified. It is formulated for use in diesel engines operating on diesel fuels with sulfur content up to 500 ppm. However, for applications not using Ultra-Low Sulfur Diesel (ULSD), consult the engine manufacturer for recommended service interval.

Applications

- On- and off- highway diesel equipment operating at low ambient temperatures
- On-highway diesel trucks equipped with EGR and exhaust aftertreatment systems to meet 2007/2010 emissions standards
- Older diesel equipment with conventional, non-EGR engines or ACERT engines
- Off-highway construction, earth moving and mining equipment
- Mixed fleets with diesel and gasoline-fueled vehicles

Guardol XT Diesel Engine Oil is licensed or meets requirements of:

- API Service CK-4 CJ-4, CI-4 PLUS, SN
- Cummins CES 20086
- Detroit Diesel DFS 93K222
- Deutz DQC III-10

Premium Full Synthetic API CK-4 Diesel Engine Oil; Fortified with Liquid Titanium® Protection Additive

KEEPING THE
WORLD
RUNNING
SMOOTHLY. 



- Mack EOS 4.5, Volvo VDS 4.5
- Mercedes-Benz Sheet 228.31
- Renault VI RLD-4
- Ford WSS-M2C171-F-1
- ACEA E9-08, E7-08
- Caterpillar ECF-3, ECF-2, ECF-1-a
- Diesel engines manufactured by OEMs not listed above, where the OEM specifies API CK-4 engine oil

Features/Benefits

- Excellent protection for newer low-emission diesel engines and older diesel engines
- Specially formulated to protect exhaust aftertreatment systems
- Outstanding soot control for protection against abrasive wear and soot-induced oil thickening
- Outstanding resistance to viscosity and thermal breakdown at high temperatures
- Exclusive Liquid Titanium additive provides enhanced oxidation and wear control
- Protects against rust, bearing corrosion and wear
- Excellent low-temperature pumpability for easier starting and less wear during cold starts
- High shear stability
- High resistance to foaming and aeration

Guardol XT[®] Full Synthetic Diesel Engine Oil

Typical Properties			
SAE Grade	0W-40	5W-40	15W-40
Specific Gravity @ 60°F	0.846	0.855	0.854
Density, lbs/gal @ 60°F	7.04	7.12	7.20
Color, ASTM D1500	4.0	4.0	3.5
Flash Point (COC), °C (°F)	226 (439)	240 (464)	233 (451)
Pour Point, °C (°F)	-58 (-72)	-48 (-54)	-42 (-44)
Viscosity, Kinematic			
cSt @ 40°C	85	96.0	104
cSt @ 100°C	14.4	14.5	14.8
Viscosity Index	178	166	148
Cold Cranking Viscosity, cP @ (°C)	5,853(-35)	6,230(-30)	4116(-20)
High-Temp/High-Shear Viscosity, cP @ 150°C	4.0	4.2	4.3
Sulfated Ash, ASTM D874, wt %	1.0	1.0	1.0
Total Base Number (TBN), ASTM D2896	10.8	10.2	10.3
Titanium	0.010	0.010	0.010
Zinc, wt %	0.1215	0.1288	1320

Health & Safety Information

For recommendations on safe handling and use of this product, please refer to the Safety Data Sheet via <http://www.phillips66.com/SDS>

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Typical properties are average values only and do not constitute a specification. Minor variations that do not affect product performance are to be expected during normal manufacture, and at different blending locations. Product formulations are subject to change without notification.

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