



The First in Synthetics®



Premium 5W-40 Synthetic Diesel Oil

Maximum Fuel Economy and Extended Drain Intervals in Ultra-Low Emission Diesel Engines

AMSOIL Premium 5W-40 Synthetic Diesel Oil is the premium choice for API CJ-4 emission-quality diesel oil required by model-year 2007 and newer diesel engines. It delivers extraordinary lubrication in diesel engines found in commercial, fleet and personal vehicles. Built with the best additive and synthetic base oil technology, AMSOIL Premium 5W-40 Synthetic Diesel Oil exceeds the higher performance demands of modern engines. It withstands the stress of heat, soot and acids to help prevent deposits, wear and corrosion. AMSOIL Premium 5W-40 is wax-free with a broad viscosity range to provide exceptional cold-weather starting and high-temperature protection. It resists breakdown and offers maximum fuel efficiency over extended drain intervals.

AMSOIL, the leader in automotive synthetic lubrication, produced the world's first API-qualified synthetic motor oil in 1972. Trust the extensive experience of AMSOIL, The First in Synthetics®, to do the best job protecting your engine.

Meets Emission System Requirements

AMSOIL Premium 5W-40 Synthetic Diesel Oil is a low-sulfated ash formulation that exceeds the requirements for low-emission quality diesel oil. It is compatible with all exhaust treatment devices and is designed to extend the service life of diesel particulate filters (DPF).

Extended Drain Performance

AMSOIL Premium 5W-40 Diesel Oil can extend drain intervals far beyond those recommended for conventional petroleum oils. Its unique synthetic formulation and long-drain additive system (10.4 TBN) deliver superior engine protection, cleanliness and performance over extended drain intervals. AMSOIL 5W-40 Synthetic Diesel Oil provides maximum protection for up to 3X the original equipment manufacturer (OEM)-recommended drain interval and even further with oil analysis.

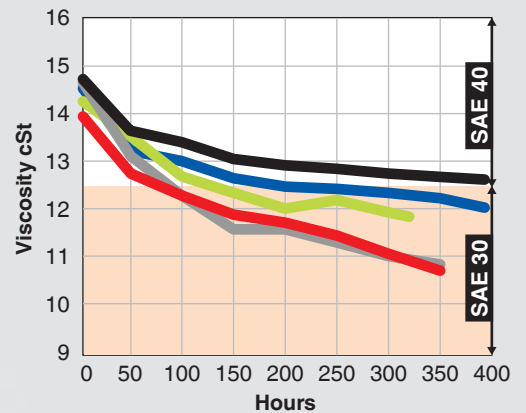
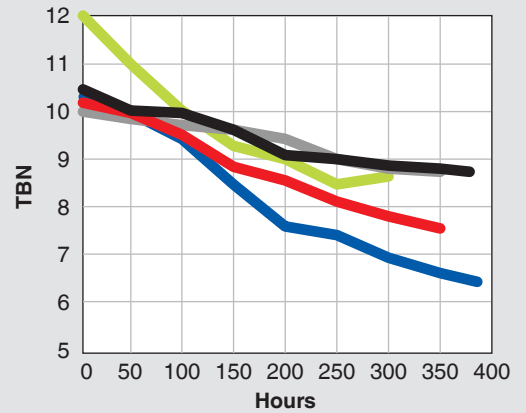
Improves Fuel Economy

The advanced synthetic technology used to engineer AMSOIL Premium 5W-40 Diesel Oil enhances viscosity properties and is proven to deliver better fuel economy. In fact, the Environmental Protection Agency's (EPA) Federal Test Procedure confirms that AMSOIL 5W-40 Diesel Oil provides up to 3 percent increased fuel economy over conventional 15W-40 diesel oils. When driving at a mix of 55 percent city/45 percent highway, the average improvement is 1.6 percent and at straight highway driving the average improvement is 1.25 percent.

Minimizes Oil Consumption and Emissions

Due to its low rate of volatility, AMSOIL 5W-40 Synthetic Diesel Oil is able to reduce oil consumption and emissions during operation. Lower volatility helps AMSOIL Premium Diesel Oil retain its viscosity after high-temperature service for dependable protection and excellent fuel economy.

SAE 5W-40 Field Study TBN and Viscosity Analysis



- Shell Rotella T6
- Mobil Delvac 1 ESP
- Vavoline Premium Blue Extreme
- Chevron Delo 400 LE
- AMSOIL Premium Synthetic Diesel Oil

AMSOIL Premium Diesel Oil provided both superior TBN and viscosity retention over 400 hours of severe-service operation.

Controls Soot-Thickening and Wear

The advanced synthetic base oils in AMSOIL 5W-40 Diesel Oil are naturally resistant to soot contamination. That, along with a heavy fortification of detergent/dispersant additives, keeps soot particles suspended independently, helping prevent the formation of larger wear-causing particles. Viscosity increase is minimized and soot-related wear is controlled.

TYPICAL TECHNICAL PROPERTIES

AMSOIL Premium 5W-40 Synthetic Diesel Oil (DEO)

Kinematic Viscosity @ 100°C, cSt (ASTM D 445)	14.5
Kinematic Viscosity @ 40°C, cSt (ASTM D 445)	90.8
Viscosity Index (ASTM D 2270)	167
CCS Viscosity @ -30°C, cP (ASTM D 5293)	6015
Flash Point °C (°F) (ASTM D 92)	226 (439)
Fire Point °C (°F) (ASTM D 92)	238 (460)
Pour Point °C (°F) (ASTM D 97)	-46 (-51)
NOACK Volatility, % weight loss (g/100g) (ASTM D 5800)	9.1
Four-Ball Wear Test (ASTM D 4172) Scar, mm	0.51
Total Base Number (ASTM D 2896)	10.4
High-Temperature/High-Shear Viscosity, cP (ASTM D 5481)	4.1
Sulfated Ash Content, wt. %	1.0

Applications

AMSOIL Premium 5W-40 Synthetic Diesel Oil is recommended for diesel engines and, where appropriate, gasoline engines requiring any of the following specifications:

- SAE 5W-40
- API Licensed CJ-4, CI-4+, CF, SN
- ACEA E7, E9
- Mack EO-O
- DDC 93K218
- Caterpillar ECF-3, ECF-2
- Cummins 20081
- Volvo VDS-4
- MS 10902
- MB 228.31
- MTU Type I & II
- MAN 3275, 3575
- JASO DH-2
- Global DHD-1
- Renault RLD-3

Compatibility

AMSOIL Premium 5W-40 Synthetic Diesel Oil is compatible with conventional and synthetic motor oils. Mixing AMSOIL motor oils with other oils, however, will shorten the oil life expectancy and reduce the performance benefits. AMSOIL does not support extended drain intervals where oils have been mixed.

Aftermarket oil additives are **not recommended** for use with AMSOIL motor oils.

Service Life

AMSOIL Premium 5W-40 Synthetic Diesel Oil is recommended for extended drain intervals in unmodified, mechanically-sound vehicles or equipment as follows:

Diesel Engine Service

- Three times (3X) OEM* recommendation, not to exceed 50,000 miles/600 hours or one year, whichever comes first. Drain intervals may be extended further with oil analysis.
- 2007-2009 Caterpillar C13 and C15 on-highway engines must follow OEM-recommended drain interval.
- 2007-Present Dodge, Ford and GM LMM light-duty diesel pickups must follow OEM-recommended drain interval. Drain intervals may be extended with oil analysis.

Gasoline Engine Service

- Two times (2X) OEM* recommendation, not to exceed 15,000 miles or one year, whichever comes first.

**Operating conditions and drain intervals for severe and normal service are defined by the OEM. Refer to your owner's manual.*

Note: Extended drain intervals are not recommended when using biofuels containing >10% ethanol or 5% biodiesel (B5). Follow OEM drain intervals or extend drain intervals with oil analysis.

Health & Safety

This product is not expected to cause health concerns when used for the intended application and according to the recommendations in the Material Safety Data Sheet (MSDS). An MSDS is available online at www.amsoil.com or by request at (715) 392-7101. **Keep Out of Reach of Children.** Don't pollute. Return used oil to collection centers.

For AMSOIL warranty information visit www.amsoil.com.



AMSOIL products and Dealership information are available from your local AMSOIL Dealer.