



Shell Rotella® T Synthetic

Full synthetic heavy-duty diesel engine oil

Shell Rotella® T Synthetic SAE 5W-40 is a fully synthetic heavy-duty diesel engine oil developed especially to meet the latest engine requirements. The advanced formulation offers users exceptional performance and protection in combination with enhanced fuel economy potential over conventional 15W-40 motor oils. This synthetic multigrade engine oil meets the latest service requirements of virtually all four-stroke cycle diesel engine manufacturers.

Performance Benefits

- Improved Wear Performance**
 Provides a significantly increased level of protection against harmful engine wear when compared to previous generation API CI-4+ engine oils.
- Improved Deposit Control**
 The advanced multi-functional dispersant additives in combination with synthetic base oils provide an enhanced level of protection against the effects of soot, dirt and other contaminants.
- Improved Heat Resistance**
 Shell Rotella® T Synthetic resists breakdown by heat to provide continuous protection throughout the service interval.
- Improved Fuel Economy**
 Use of synthetic SAE5W-40 oils, such as Shell Rotella® T Synthetic, has been shown to be capable of contributing up to 1% improvement in fuel economy in laboratory tests when compared to conventional SAE 15W-40 oils
- Protection in Extreme Climates**
 Shell Rotella® T Synthetic is based on free-flowing synthetic base oils that allow reliable pumping on start-up under cold climate conditions yet remain thick enough even under high temperature operation to protect against wear.

Warranty Requirements

Product performance that meets or exceeds virtually all equipment manufacturer's engine



oil warranty requirements.

Applications

- For new and older diesel powered vehicles**
 Suitable for new and older diesel powered vehicles from Class 8 tractor/trailers to heavy-duty diesel pickups, delivery, utility, and school bus fleets.
- Meets or exceeds diesel engine requirements**
 Meets or exceeds requirements of API CJ-4, Cummins, Caterpillar, Detroit Diesel, Mack, Mercedes Benz, Volvo, Ford.
- Gasoline engine applications**
 Meets the requirements of API SM

Specifications and Approvals

Specifications and Approvals	SAE Viscosity Grade
	5W-40
API: CJ-4, CI-4 PLUS, CI-4, CH-4, CG-4, CF-4, CF	✓
API: SM, SL, SJ, SH	✓
Caterpillar : ECF-3, ECF-2	✓
Cummins: CES 20081	✓

DDC: 93K218	✓
Ford: WSS-M2C171-E	✓
Mack: EO-O Premium Plus	✓
MB Approval: 228.31	✓
Volvo: VDS-4	✓

Protect the environment

Take used oil to an authorized collection point. Do not discharge into drains, soil or water

Advice

Advice on applications not covered in this leaflet may be obtained from your Shell representative.

Health & Safety

Guidance on Health and Safety are available on the appropriate Material Safety Data Sheet, which can be obtained from your Shell representative.

Typical Physical Characteristics

Shell Rotella® T Synthetic	
SAE Viscosity Grade	5W-40
Viscosity @ 40°C cSt (D445) 100°C cSt (D445)	95 15.5
Viscosity Index (D2270)	175
Low temperature cranking viscosity @ -30°C cP (ASTM D 5293)	6400
Low temperature pumping viscosity @ -35°C cP (ASTM D 4684)	28000
Sulphated Ash % (ASTM D 874)	1.0
Neutralization No TBN-E (D2896)	10.6
Flash Point (COC) °C (ASTM D 92)	224
Pour Point °C (ASTM D 97)	-36

These characteristics are typical of current production. While future production will conform to Shell's specifications, variations in these characteristics may occur. The information contained herein is subject to change without notice.