



Technical Data Sheet

Shell Rotella® T6 5W-40 (CJ-4)

- Low Emissions
- Energy Saving

Fully Synthetic Heavy Duty Diesel Engine Oil -Extreme Temperature Performance

Shell Rotella® T6 Energized Protection™ oil features Shell exclusive "Low-SAPS" additive technology reinforced with a novel and unique anti-wear system. Protective power is further enhanced through the use of synthetic base oil technology that increases additive activity to deliver low-viscosity fuel saving performance with no compromise in durability. Key benefits include; compatibility with exhaust emissions control systems, protection in extreme operating temperatures and fuel economy performance*.



ENERGIZED PROTECTION
Adapting to your engine's changing needs

Performance, Features & Benefits

- **Improved fuel economy**
Through use of Shell's most advanced technology Shell Rotella® T6 oil offers enhanced fuel economy capability* that can save money in fuel consumption, without compromising engine protection or durability.
*eg compared to 15W-40 oils
- **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® T6 Synthetic oil resists breakdown by heat to provide continuous protection throughout the service interval.
- **Emissions system compatibility**
Advanced low-ash formulation helps control blocking of or poisoning of exhaust after-treatment devices, helping maintain vehicle emission compliance and engine fuel efficiency.
- **Protection in extreme climates**
Shell Rotella® T6 Synthetic oil is based on freeflowing synthetic base oils that allow reliable pumping on start-up under cold climate conditions yet remain thick enough under high temperature operation to protect against wear.
- **Outstanding shear stability**
Shell Rotella® T6 Synthetic oil resists viscosity loss through shear and will maintain optimal oil pressure in the engine.

Main 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, Approvals & Recommendations

- API: CJ-4, CI-4 PLUS, CI-4, CH-4, CG-4, CF-4, CF
- API: SM, SL, SJ, SH
- ACEA: E9
- Caterpillar: ECF-3, ECF-2
- Cummins: CES 20081
- DDC: 93K218
- Ford: WSS-M2C171-E
- JASO: DH2, MA
- Mack: EO-O Premium Plus
- MB Approval: 228.31
- Volvo: VDS-4

For a full listing of equipment approvals and recommendations, please consult your local Shell Technical Help Desk, or the OEM Approvals website.

Typical Physical Characteristics

Properties			Method	Shell Rotella® T6 5W-40 (CJ-4)
SAE Viscosity Grade				5W-40
Kinematic Viscosity	@40°C	mm ² /s	ASTM D445	87
Kinematic Viscosity	@100°C	mm ² /s	ASTM D445	14.2
Dynamic Viscosity	@-30°C	mPa s	ASTM D5293	6000
Total Base Number		mg KOH/g	ASTM D2896	10.6
Sulfated Ash		%	ASTM D874	1.0
Density	@15°C	kg/l	ASTM D4052	0.858
Flash Point (COC)		°C	ASTM D92	224
Pour Point		°C	ASTM D97	-42

These characteristics are typical of current production. While future production will conform to Shell's specification, variations in these characteristics may occur.

Health, Safety & Environment

■ Health and Safety

Shell Rotella® T6 is unlikely to present any significant health or safety hazard when properly used in the recommended application and good standards of personal hygiene are maintained.

Avoid contact with skin. Use impervious gloves with used oil. After skin contact, wash immediately with soap and water.

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

■ Protect the Environment

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

Additional Information

■ Advice

Product recommendations for applications and specifications not covered here may be obtained from your Shell representative.