



# Shell Rotella® T5 10W-40 (CJ-4) • Low Emissions • Energy Saving

*Synthetic Blend Technology Heavy Duty Diesel Engine Oil*

Shell Rotella® T5 Energized Protection™ oil features "Low-SAPS" additive technology for increased compatibility with the latest exhaust emissions control systems while delivering energy savings. Protective power is further enhanced through the use of synthetic base oil technology that increases additive activity to deliver fuel economy performance with no compromise in durability.



## Performance, Features & Benefits

- **Emissions system compatibility**  
Advanced low-ash formulation helps control the blocking or poisoning of exhaust after-treatment devices, helping maintain vehicle emission compliance and engine fuel efficiency.
- **Fuel economy capability**  
The use of synthetic base oil components provides Shell Rotella® T5 with the capability to improve cold starting and reduce fuel consumption and save money, without compromising engine protection or durability.
- **Improved engine cleanliness**  
The advanced formulation delivers good engine cleanliness and protection against piston deposits ensuring engine and component reliability at extended oil drain intervals.

- **Low emission engine use**  
Shell Rotella® T5 meets the requirements of the major US and European engine manufacturers for low emission applications.

## Specifications, Approvals & Recommendations

- API: CJ-4, SM
- ACEA: E9, E7
- Caterpillar: ECF-3, ECF-2
- Cummins: CES 20081
- Mack: EO-O Premium Plus
- MAN: M 3575
- MTU: Cat 2.1
- JASO: DH-2
- MB Approval: 228.31
- DDC: 93K218
- Volvo: VDS-4

## Main Applications



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® T5 10W-40 (CJ-4)
SAE Viscosity Grade				10W-40
Kinematic Viscosity	@40°C	mm <sup>2</sup> /s	ASTM D445	98.3
Kinematic Viscosity	@100°C	mm <sup>2</sup> /s	ASTM D445	14.5
Dynamic Viscosity	@-25°C	mPa s	ASTM D5293	6700
Viscosity Index			ASTM D2270	152
Total Base Number	mg KOH/g		ASTM D2896	10
Sulfated Ash	%		ASTM D874	1.0
Density	@15°C	kg/l	ASTM D4052	0.866
Flash Point (COC)	°C		ASTM D92	230
Pour Point	°C		ASTM D97	-39

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® T5 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.