Technical Data Sheet

Shell Rotella® *T3 15W-40 (CJ-4)*

- *Low Emissions*
- *Maintenance Savings*

Fleet Multigrade Heavy Duty Diesel Engine Oils

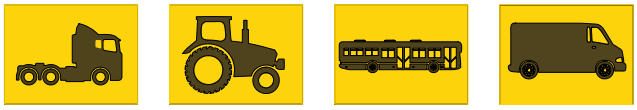
Shell Rotella® T3 Energized Protection™ oils use the latest "Low-SAPS" additive technology to protect under the most severe conditions found in modern low emission engines. The protective power of the oil is enhanced through the use of high purity "Group II" base oils that provide increased additive activity.
The exclusive high TBN/low-ash formulation helps protect the exhaust catalysts and particulate traps found on the latest low emission vehicles. Recommended by a wide range of OEMs, suitable for both the latest low-emissions and older model equipment. Designed for fleet and off highway use, Shell Rotella® T3 offers the convenience of a single oil suitable for your entire fleet.

ENERGISED PROTECTION
Adapting to your engine's changing needs

Performance, Features & Benefits

- **Simplify inventory needs**
  Shell Rotella® T3 is approved by a wide range of leading OEMs, simplifying inventory needs for fleets with a mixture of engine makes.
- **Emissions systems capability**
  Advanced low-ash formulation helps control blocking of or poisoning of exhaust after-treatment devices, helping maintain vehicle emission compliance and engine fuel efficiency.
- **Lower operating costs**
  Shell Rotella® T3 is formulated with an enhanced acid-control system to help fleet operators to achieve maximum drain flexibility.
- **Extended drain capability**
  Formulated with an optimized detergent system designed to provide high TBN and extended drain capabilities, demonstrated by meeting the requirements of API CJ-4, CI-4 PLUS and Cummins CES 20081.
- **Outstanding shear stability and soot control**
  Shell Rotella® T3 uses an additive system designed to provide outstanding viscosity control throughout the drain interval for consistent lubrication and wear protection.

Main Applications



- **Severe duty heavy duty diesel engines**
  Shell Rotella® T3 provides outstanding protection for virtually all heavy duty diesel engines, including engines with the latest emission controlled engines using EGR and containing a Diesel Particulate Filter.
- **Off-highway applications**
  Suitable for use in agricultural and construction applications, even with high levels of fuel Sulfur.

Specifications, Approvals & Recommendations

- API: CJ-4, CI-4 PLUS, CI-4, CH-4, CG-4, CF-4, CF
- API SM, SL
- ACEA: E9, E7
- JASO DH-2
- Caterpillar: ECF-2, ECF-3
- Cummins: CES 20081
- DDC: 93K218
- Deutz: DQC III-10 LA
- MACK: EO-O Premium Plus
- MB Approval: 228.31
- MTU: Category 2.1
- Renault Trucks: RLD-3
- Volvo: VDS-4, VDS-3
- Iveco T2 E7 - meets requirements

  For a full listing of equipment approvals and recommendations, please consult your local Shell Technical HelpDesk.

Typical Physical Characteristics

Properties			Method	Shell Rotella T3 (CJ-4)
SAE Viscosity Grade				15W-40
Kinematic Viscosity	@40°C	mm^2/s	ASTM D445	115
Kinematic Viscosity	@100°C	mm^2/s	ASTM D445	15.5
Viscosity Index			ASTM D2270	142
Density	@15°C	kg/l	ASTM D4052	0.879
Sulfated Ash		%	ASTM D874	1.0
Total Base Number		mg KOH/g	ASTM D2896	10
Flash Point (Cleveland Open Cup)		°C	ASTM D92	227
Pour Point		°C	ASTM D97	-30

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

Health, Safety & Environment

- **Health and Safety**

  Shell Rotella T3 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 authorised collection point. Do not discharge into drains, soil or water.

Additional Information

- **Advice**

  Advice on applications not covered here may be obtained from your Shell representative.