



# Shell ROTELLA® T4 Triple Protection® 10W-30

- Protection from wear, deposits and oil breakdown.
- Better Fuel Economy\*

Triple Protection Technology - Heavy Duty Diesel Engine Oils

Shell ROTELLA® T4 Triple Protection® engine oil has been formulated to provide Triple Protection technology against wear, deposits and oil breakdown.

Shell ROTELLA® T4 Triple Protection® oil uses advanced additive technology to protect under the most severe engine conditions found in modern, low-emission engines. Recommended by a wide range of OEMs, suitable for both the latest low-emissions and older model equipment.

\*Compared to a conventional SAE 15W-40 oil.



## Performance, Features & Benefits

### • Outstanding wear protection

Demonstrated over millions of miles of customer service, Shell ROTELLA® T4 Triple Protection® provides exceptional wear protection to help maximize engine efficiency and prolong engine life.

### • Exceptional engine cleanliness

Formulated for enhanced deposit protection to help keep engines cleaner over the oil drain interval.

### • Emissions system compatibility

The advanced low-ash formulation helps control blocking of particulate filters and poisoning of exhaust after-treatment devices, helping maintain vehicle emission compliance and engine fuel efficiency.

### • Outstanding shear stability

A continued heritage of outstanding shear stability for viscosity control and optimal oil pressure in your engine.

## Main Applications



### • Severe duty heavy duty diesel engines

Shell ROTELLA® T4 Triple Protection® provides outstanding protection for virtually all heavy duty diesel engines, including engines with the latest emission control using EGR and containing a Diesel Particulate Filter.

### • Off-highway applications

Suitable for use in agricultural, mining, logging, and construction applications, even with high levels of fuel Sulfur.

### • Hard working diesel and gasoline engines

Suitable for use in pick-up trucks, sport-utility vehicles (SUVs), mini-vans and motorcycles.

## Specifications, Approvals & Recommendations

- API CK-4, CJ-4, CI-4 PLUS, CI-4, CH-4
- API SN
- ACEA E9
- Caterpillar ECF-2, ECF-3
- Cummins CES 20086, 81
- Detroit Fluids Specification (DFS) 93K222, 93K218
- Mack EOS-4.5, EO-O Premium Plus
- Volvo VDS-4.5, VDS-4
- JASO DH-2
- Ford WSS-M2C171-F1

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

## Typical Physical Characteristics

Properties			Method	Shell ROTELLA T4 Triple Protection 10W-30
Kinematic Viscosity	@40°C	mm <sup>2</sup> /s	ASTM D445	81.8
Kinematic Viscosity	@100°C	mm <sup>2</sup> /s	ASTM D445	12.1
Dynamic Viscosity	@-25°C	mPa s	ASTM D5293	6400
Viscosity Index			ASTM D2270	141
Total Base Number		mg KOH/g	ASTM D2896	10.1
Sulfated Ash		%	ASTM D874	1.0
Density	@15°C	kg/l	ASTM D4052	0.863
Flash Point (COC)			ASTM D92	237
Pour Point		°C	ASTM D97	-43

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® T4 Triple Protection® 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.