Shell ROTELLA® T4 Triple Protection® 15W-40

Triple Protection Technology - Heavy Duty Diesel Engine Oils

Shell ROTELLA® T4 Triple Protection® heavy duty 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.

Performance, Features & Benefits

- **Outstanding wear protection**
  Demonstrated over millions of miles of on & off highway field trials, Shell ROTELLA® T4 Triple Protection® provides significantly better wear protection than previous generation oils to 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 exclusive low ash formulation helps protect the exhaust catalysts and particulate filters found on the latest low emission vehicles.

- **Outstanding shear stability**
  Enhanced shear stability performance for viscosity control and optimal oil pressure in your engine.

Specifications, Approvals & Recommendations

- **API CK-4, CJ-4, CI-4 PLUS, CI-4, CH-4**
- **API SN**
- **ACEA E9**
- **JASO DH-2, MA, MA2**
- **Caterpillar ECF-2, ECF-3**
- **Cummins CES 20086, 81**
- **Detroit Fluids Specification (DFS) 93K222, 93K218**
- **Deutz DQC III-10 LA**
- **MACK EOS-4.5, EO-O Premium Plus**
- **MAN M3575**
- **MB-Approval 228.31**
- **MTU Category 2.1**
- **Allison TES-439**
- **Volvo VDS-4.5, VDS-4**

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

Main Applications

- **Severe duty heavy duty diesel engines**
  Provides outstanding protection for virtually all heavy duty diesel engines, including the latest emission controlled engines 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.
Typical Physical Characteristics

<table>
<thead>
<tr>
<th>Properties</th>
<th>Method</th>
<th>Shell ROTELLA T4 Triple Protection 15W-40</th>
</tr>
</thead>
<tbody>
<tr>
<td>Kinematic Viscosity @40°C</td>
<td>ASTM D445</td>
<td>118</td>
</tr>
<tr>
<td>Kinematic Viscosity @100°C</td>
<td>ASTM D445</td>
<td>15</td>
</tr>
<tr>
<td>Viscosity Index</td>
<td>ASTM D2270</td>
<td>133</td>
</tr>
<tr>
<td>Density @15°C</td>
<td>ASTM D4052</td>
<td>0.878</td>
</tr>
<tr>
<td>Sulfated Ash @15°C</td>
<td>ASTM D874</td>
<td>1.0</td>
</tr>
<tr>
<td>Total Base Number</td>
<td>ASTM D2896</td>
<td>10.1</td>
</tr>
<tr>
<td>Flash Point (COC)</td>
<td>ASTM D92</td>
<td>204</td>
</tr>
<tr>
<td>Pour Point °C</td>
<td>ASTM D97</td>
<td>-36</td>
</tr>
</tbody>
</table>

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.