Shell Rotella® T1 30 (CF/CF-2)

High Quality Heavy Duty Diesel Engine Oils

Shell Rotella® T1 Energized Protection™ oils use well-proven performance additives to fight engine wear and prevent deposits, providing reliable lubrication and consistent performance. Suitable for day to day use in turbo and non-turbocharged older engines.

Performance, Features & Benefits

- **Reliable performance**
  Provide reliable all-year-round performance in the applications for which they are intended.

- **Proven durability**
  Shell Rotella® T1 provides excellent wear protection that promotes engine durability. It has a low ash content which minimizes the formation of deposits and keeps intake ports clean. It offers excellent rust and corrosion protection for critical engine parts.

Main Applications

- **Heavy duty diesel engines**
  Shell Rotella® T1 is suitable for mixed fleets combining large over the road diesel trucks with smaller diesel and gasoline-fuelled light trucks and passenger cars.

Specifications, Approvals & Recommendations

- API CF-2, CF
- Detroit Diesel Series 53, 71, 92

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

Typical Physical Characteristics

<table>
<thead>
<tr>
<th>Properties</th>
<th>Method</th>
<th>Shell Rotella T1 30 (CF/CF-2)</th>
</tr>
</thead>
<tbody>
<tr>
<td>SAE Viscosity Grade</td>
<td>J300</td>
<td>30</td>
</tr>
<tr>
<td>Kinematic Viscosity</td>
<td>@104°F cSt</td>
<td>ASTM D445 107</td>
</tr>
<tr>
<td>Kinematic Viscosity</td>
<td>@212°F cSt</td>
<td>ASTM D445 11.9</td>
</tr>
<tr>
<td>Viscosity Index</td>
<td>ASTM D2270</td>
<td>101</td>
</tr>
<tr>
<td>Density</td>
<td>@15°C kg/l</td>
<td>ASTM D4052 0.887</td>
</tr>
<tr>
<td>Total Base Number</td>
<td>mg KOH/g</td>
<td>ASTM D2896 7.5</td>
</tr>
<tr>
<td>Flash Point (Cleveland Open Cup)</td>
<td>°F</td>
<td>ASTM D92 410</td>
</tr>
<tr>
<td>Pour Point</td>
<td>°F</td>
<td>ASTM D97 -11.2</td>
</tr>
</tbody>
</table>

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 T1 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.