

#### **Technical Data Sheet**

Low Emissions Extra Life - Improved Protection

# Shell **Rimula** *R4 L 15W-40 (CJ-4)*

# Multigrade Heavy Duty Diesel Engine Oils

Shell Rimula R4 L Energised 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. It delivers significant improvements in wear protection, deposit control and resistance to breakdown under high temperatures\*. The exclusive 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 (Euro 4,5, US 2007) and older model equipment.

\* compared to previous generation oils such as API CI-4 and Acea E7

#### ENERGISED PROTECTION Adapting to your engine's changing nee

## Performance, Features & Benefits

· Simplify inventory needs

Shell Rimula R4 L is approved by a wide range of leading OEMs, simplifying inventory needs for fleets with a mixture of engine makes.

• Emissions system 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 Rimula R4 L is formulated with an enhanced acidcontrol system to help fleet operators to achieve maximum drain flexibility.

· Outstanding wear protection

Demonstrated over millions of km of customer service, Shell Rimula R4 L provides significantly higher levels of wear protection than previous generation oils to prolong engine efficiency and life.

# **Main Applications**



## Off-highway applications

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

# • Severe duty heavy duty diesel engines

Shell Rimula R4 L is our highest performance 15W-40 HD oil providing outstanding protection for virtually all engines including the latest Euro 5 and US 2007 as well as older units.

## Specifications, Approvals & Recommendations

- Caterpillar: ECF-2, ECF-3
- Cummins: CES 20081, 77, 72, 71
- DDC: 93K218
- Deutz: DQC III-10 LA
- MACK: EO-O Premuim Plus
- MAN: 3575
- MB Approval: 228.31
- MTU: Category 2.1
- Renault Trucks: RLD-3
- · Scania: Low Ash
- JASO: DH-2
- IVECO: T2 E7 (Meets specification)
- Volvo: VDS-4, VDS-3
- API: CJ-4, CI-4+, CI-4, CH-4, CG-4, CF-4, CF.
- Acea: E9, E7

For a full listing of equipment approvals and recommendations, please consult your local Shell Technical Helpdesk, or the OEM Approvals website.

# Typical physical characteristics

Properties			Method	Shell Rimula R4 L (CJ-4)
Viscosity Grade				15W-40
Kinematic Viscosity	@40°C	mm²/s	ASTM D445	118
Kinematic Viscosity	@100°C	mm²/s	ASTM D445	15.5
Viscosity Index			ASTM D2270	139
Density	@15 <sup>°</sup> C	kg/l	ASTM D4052	0.883
Sulphated Ash		%	ASTM D874	1.0 max
Total Base Number		mg KOH/g	ASTM D2896	10.6
Flash Point (COC)		°C	ASTM D92	227
Pour Point		°C	ASTM D97	-33

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 Rimula R4 L 15W-40 (CJ-4) 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 http://www.epc.shell.com/

#### • 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.