

#### **Technical Data Sheet**

Low Emissions

# Shell Rimula R4 L 15W-40

# Heavy Duty Diesel Engine Oil

Shell Rimula R4 L oils use "Low-SAPS" additive technology to protect low emission engines under severe conditions. It delivers improvements in wear and deposit control, resistance to breakdown under high temperatures compared to previous oil.

#### DYNAMIC PROTECTION

# 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 meets the requirements of the major European and North American engine manufacturers for low emission applications.

# Specifications, Approvals & Recommendations

- API CK-4, CJ-4, CI-4 Plus, CI-4, CH-4, SN
- ACEA E7, E9, E11
- Allison TES 439
- Caterpillar ECF-3, ECF-2
- Cummins CES 20086, 20081
- Detroit Fluids Specification (DFS) 93K222, 93K218
- Deutz DQC III-18 LA
- DTFR 15C100
- MAN M 3775
- MTU Category 2.1
- JASO DH-2
- IVECO T2 E7 (Meets specification)
- Volvo VDS-4.5
- Mack EOS-4.5, EO-O Premium Plus
- Renault Truck RLD-3

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

# **Typical Physical Characteristics**

Properties			Method	Shell Rimula R4 L 15W-40
Kinematic Viscosity	@40°C	mm²/s	ASTM D445	115
Kinematic Viscosity	@100°C	mm²/s	ASTM D445	15.3
Viscosity Index			ASTM D2270	139
Density	@15 <sup>°</sup> C	kg/l	ASTM D4052	0.876
Sulphated Ash		% maximum	ASTM D874	1.0
Total Base Number		mg KOH/g	ASTM D2896	10
Flash Point (COC)		°C	ASTM D92	236
Pour Point		°C	ASTM D97	-35

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 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 Safety Data Sheet, which can be obtained from https://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.

Technical Helpdesk 1300 134 205