

## **Technical Data Sheet**

• Off Highway – High Power Use

# Shell Rimula R4 MV 15W-40

# Heavy-Duty Diesel Engine Oil

Shell Rimula R4 MV oils use "Low-SAPS" additive technology to protect low emission engines under severe operating conditions like mining, construction and quarrying.



# Performance, Features & Benefits

## Hardworking Protection

Shell Rimula R4 MV provides exceptional performance in modern hard-working diesel engines using low sulphur fuel level.

## • Longer oil life

The dedicated formulation of Shell Rimula R4 MV exceeds the oxidation control requirements for API CK-4 specifications for continued protection throughout the oil drain internal, and under the most severe operating conditions.

# **Main Applications**



## Off-highway applications

Shell Rimula R4 MV is especially designed to provide no compromise protection for the leading brand of heavy duty diesel engine oil for severe duty off-highway equipment, and meets the latest specifications from Caterpillar and Cummins.

# **Typical Physical Characteristics**

## Emission controlled engines

The advanced formulation of Shell Rimula R4 MV offers increased performance and protection for Tier 3 and Tier 4 engines.

• Shell Rimula R4 MV is suitable for use with biodiesel per the OEM recommended oil drain intervals.

# Specifications, Approvals & Recommendations

- API CK-4, CJ-4
- Caterpillar ECF-2, ECF-3
- Cummins CES 20086, 20081
- MTU Category 2.1
- Deutz DQC III-18 LA
- JASO DH-2

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

Properties			Method	Shell Rimula R4 MV 15W-40
Kinematic Viscosity	@40°C	mm²/s	ASTM D445	115
Kinematic Viscosity	@100°C	mm²/s	ASTM D445	15.3
Dynamic Viscosity	@-20°C	mPa s	ASTM D5293	6400
Viscosity Index			ASTM D2270	139
Density	@15ºC	kg/l	ASTM D4052	0.876
Flash Point (COC)		٥C	ASTM D92	236
Pour Point		°C	ASTM D97	-35
Total Base Number		mg KOH/g	ASTM D2896	10

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 MV 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 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.

Technical Helpdesk 1300 134 205