



## Technical Data Sheet

- Off Highway – High Power Use
- Energy Saving
- Low Emissions

# Shell Rimula R5 MV 10W-40

## Synthetic Technology Heavy Duty Diesel Engine Oil

Shell Rimula R5 MV oils use “Low-SAPS” additive technology combined with synthetic base oils to deliver enhanced protective performance. Formulated to protect under severe operating conditions like mining, construction and quarrying.



### Performance, Features & Benefits

- **Hardworking Protection**

Shell Rimula R5 MV provides exceptional performance in modern hard-working diesel engines using low sulphur fuel level. It is formulated to meet the requirements of the severe operating conditions in mining, construction and quarrying sector.

- **Emissions system capability**

Advanced low-ash formulation helps control the blocking or poisoning of exhaust after-treatment devices, helping maintain vehicle emission compliance and engine fuel efficiency.

- **Longer oil life**

The dedicated formulation of Shell Rimula R5 MV exceeds the oxidation control requirements for API CK-4 specifications for continued protection throughout the oil drain interval, and under the most severe operating conditions.

- **Fuel economy capability**

The use of synthetic base oil components provides Shell Rimula R5 MV with the capability to improve cold starting and reduce fuel consumption and save money, without compromising engine protection or durability.

- **Off-highway applications**

Shell Rimula R5 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.

- **Emission controlled engines**

The advanced formulation of Shell Rimula R5 MV offers increased performance and protection for Tier 3 and Tier 4 engines.

- Shell Rimula R5 MV is suitable for use with biodiesel per the OEM recommended oil drain intervals.

### Specifications, Approvals & Recommendations

- API CK-4, CJ-4, CI-4 Plus, CI-4, CH-4, SN
- JASO DH-2
- Caterpillar ECF-3, ECF-2
- Cummins CES 20086, CES 20081
- Deutz DQC III-10 LA
- MTU Category 2.1
- Volvo VDS-4.5

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

### Main Applications



## Typical Physical Characteristics

| Properties          |        |                    | Method     | Shell Rimula R5 MV 10W-40 |
|---------------------|--------|--------------------|------------|---------------------------|
| Kinematic Viscosity | @40°C  | mm <sup>2</sup> /s | ASTM D445  | 102                       |
| Kinematic Viscosity | @100°C | mm <sup>2</sup> /s | ASTM D445  | 14.8                      |
| Dynamic Viscosity   | @-25°C | mPa s              | ASTM D5293 | 6 500                     |
| Viscosity Index     |        |                    | ASTM D2270 | 152                       |
| Total Base Number   |        | mg KOH/g           | ASTM D2896 | 10                        |
| Sulphated Ash       |        | %                  | ASTM D874  | 1                         |
| Density             | @15°C  | kg/m <sup>3</sup>  | ASTM D4052 | 866                       |
| Flash Point         |        | °C                 | ASTM D92   | 237                       |
| Pour Point          |        | °C                 | ASTM D97   | -36                       |

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

This product 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.