



Shell Rimula R3+ 40 (CF/228.0)

- Extra Performance Monograde

Monograde Heavy Duty Diesel Engine Oils

Shell Rimula R3 Energised Protection oils feature proven lubricant chemistry that adapts to your driving needs to provide extra protection whatever the demands of your engine or equipment. Featuring an active-detergent system to keep pistons and other engine parts clean, it provides protection against wear for long engine life and protection against deposits for efficient engine performance.



ENERGISED PROTECTION
Adapting to your engine's changing needs

Performance, Features & Benefits

- **Equipment manufacturer acceptance**
Shell Rimula R3 monogrades are approved for use in a variety of engine applications by leading OEMs.
- **High standard of piston cleanliness**
The high thermal stability and oil oxidation resistance provide a high standard of piston cleanliness.
- **Low engine wear and long component life**
Overall engine cleanliness contributes to low engine wear, long component life, maintenance of power output, more operational stability and lower servicing costs.

Main Applications



- **Dedicated diesel engine oil performance**
Shell Rimula R3 monogrades have been formulated to provide robust engine performance in a variety of off-highway applications or older on-highway diesel vehicles.
- **Construction industry application**
Engine oil technology is sometimes specified for use in the transmission and hydraulic applications. Shell Rimula R3 monogrades offer premium performance and protection for these applications.

Stationary equipment

Shell Rimula R3 monogrades are suitable for certain stationary equipment, such as pumps, that run continuously under steady state conditions.

Detroit Diesel two-stroke engines

Shell Rimula R3 oils should not be used in Detroit Diesel two-stroke engines. An SAE 40 oil meeting the API CF-II Specification and having a sulphated ash content of less than 1% should be used.

Specifications, Approvals & Recommendations

- MAN : 270
- MB Approval: 228.0
- MTU: Category 1
- API : CF
- ACEA: E2

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 R3+ (CF/228.0) |
|---------------------|--------|--------------------|-------------|-----------------------------|
| Viscosity Grade | | | | 40 |
| Kinematic Viscosity | @40°C | mm ² /s | ASTM D 445 | 140 |
| Kinematic Viscosity | @100°C | mm ² /s | ASTM D 445 | 14.5 |
| Dynamic Viscosity | @-25°C | mPa s | ASTM D 5293 | - |
| Viscosity Index | | | ASTM D 2270 | 102 |
| Density | @15°C | kg/l | ASTM D 4052 | 0.895 |
| Flash Point (COC) | | | ASTM D92 | 250 |
| Pour Point | | | ASTM D97 | -15 |

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 R3+ Oil 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.