Technical Data Sheet

# Shell **Rimula** *R3 Turbo 20W-50*

- Triple Action Resists
- Wear, Deposits, Heat

***Heavy Duty Diesel Engine Oil***

Provides protection against wear, deposit formation and resists thickening by heat.

DYNAMIC PROTECTION

## Performance, Features & Benefits

- **Equipment manufacturer acceptance**

  Shell Rimula R3 Turbo oils are approved for use in a variety of engine applications by leading OEMs.

- **Engine cleanliness**

  The high thermal stabilty and oil oxidation resistance provide a high standard of protection against piston deposits. Engine cleanliness is further enhanced through use of high performance dispersants to control sludge and deposits in other parts of the engine.

- **Low engine wear**

  The combination of active anti-wear additives and good engine cleanliness controls engine wear, gives long engine life, maintains engine power and efficiency and lowers servicing costs.

## Main Applications



- **On-highway heavy duty trucks**

  With a wide range of OEM approvals, Shell Rimula R3 Turbo oils are suitable for most heavy duty engines found in on-highway applications.

- **Construction and mining**

  Shell Rimula R3 Turbo is recommended for most engine types found in construction and mining equipment such as Caterpillar, Cummins, Detroit Diesel (4-cycle), MTU and Komatsu engines.

- **Agricultural equipment**

  Shell Rimula R3 Turbo is ideally suited for the stop-start service found in agricultural operation and protects against bearing wear and deposit formation even under these severe conditions.

  For more severe operations or applications in modern low emission engines we recommend Shell Rimula R4 or Rimula R5 multigrade oils.

## Specifications, Approvals & Recommendations

- Cummins CES 20071
- MACK EO-M
- MAN 271
- MB-Approval 228.1
- API CH-4, CG-4, CF-4, CF
- ACEA E2

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

## Typical Physical Characteristics

| Properties | | | Method | Shell Rimula R3 Turbo 20W-50 |
|---|---|---|---|---|
| Kinematic Viscosity | @40°C | $mm^2/s$ | ASTM D445 | 147.3 |
| Kinematic Viscosity | @100°C | $mm^2/s$ | ASTM D445 | 17.5 |
| Dynamic Viscosity | @-15°C | mPa s | ASTM D5293 | 6 450 |
| Viscosity Index | | | ASTM D2270 | 130 |
| Density | @15°C | kg/l | ASTM D4052 | 0.893 |
| Flash Point (COC) | | °C | ASTM D92 | 235 |
| 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 R3 Turbo 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.