



Technical Data Sheet

Shell Rimula R3 X 20W-50 (CH-4/228.3)

- Triple action
- Resists wear, deposits and heat

Multigrade Heavy Duty Diesel Engine Oil

Shell Rimula R3 X Energised Protection oils feature modern high-performance lubricant chemistry specifically designed to protect against the changing needs of your driving conditions. This unique adaptive technology features multi-component systems to provide triple action protection; low wear for long engine life, low deposit formation to maintain engine performance and resists breakdown by heat for continuous protection.

With a wide array of engine maker approvals, it is suitable for virtually all heavy duty engines, non-turbocharged and turbocharged alike, in on and off-highway service.



ENERGISED PROTECTION
Adapting to your engine's changing needs

Performance, Features & Benefits

■ Engine cleanliness

High thermal stability provides a high standard of protection against piston deposits which, together with high performance dispersants, delivers excellent control of sludge and deposits in 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.

■ High temperature protection

Shell Rimula R3 X has been demonstrated to resist thermal breakdown ensuring continued protection throughout the drain interval, even under severe conditions found in modern engines.

Main Applications



■ On-highway heavy duty trucks

With a wide range of OEM approvals, Shell Rimula R3 X is suitable for virtually all heavy duty engines.

■ Construction and mining

Shell Rimula R3 X is recommended for most engine types found in construction and mining equipment such as Caterpillar, Cummins, Detroit Diesel (4-cycle), MTU and Komatsu engines. It is formulated to provide continuous protection even where higher sulphur fuels are used.

■ Agricultural equipment

Shell Rimula R3 X is ideally suited for the stop-start service found in agricultural operation and protects against bearing wear and deposits.

Specifications, Approvals & Recommendations

- Cummins: CES 20075, 72, 71
- MACK: EOM
- MAN: M3275-1
- MB Approval: 228.3
- API: CH-4, CG-4, CF-4, CF
- ACEA: E5, E3

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 X 20W-50 (CH-4/228.3)
Viscosity Grade				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	6450
Dynamic Viscosity	@-20°C	mPa s	ASTM D5293	-
Viscosity Index			ASTM D2270	130
Density	@15°C	kg/l	ASTM D4052	0.893
Flash Point COC			ASTM D92	235
Pour Point			ASTM D97	-36
Total Base Number			ASTM D2896	10.8
Sulphated Ash			ASTM D874	1.44

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 X oils are unlikely to present any significant health or safety hazard when properly used in the recommended application, and good standards of industrial and personal hygiene are maintained.

Avoid contact with skin. Use impervious gloves with used oil. After skin contact, wash immediately with soap and water.

■ Protect the Environment

Take used oil to an authorized 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.