



## Technical Data Sheet

# Shell Rimula R5 LE 10W-40 (CJ-4/228.31)

- Low Emissions
- Energy Saving

## Synthetic Technology Heavy Duty Diesel Engine Oil

Shell Rimula R5 LE Energised Protection oil features "Low-SAPS" additive technology for increased compatibility with the latest exhaust emissions control systems while delivering energy savings. Protective power is further enhanced through the use of synthetic base oil technology that increases additive activity to deliver fuel economy performance with no compromise in durability.



### Performance, Features & Benefits

#### ■ 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.

#### ■ Fuel economy capability

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

#### ■ Improved engine cleanliness

The advanced formulation delivers good engine cleanliness and protection against piston deposits allowing Shell Rimula R5 LE to ensure engine and component reliability at extended oil drain intervals.

### Main Applications



#### ■ European heavy duty engines

Shell Rimula R5 LE provides protection and performance in modern high power heavy-duty diesel engines from leading European engine makers such as Mercedes-Benz and MAN and where oils meeting ACEA E9 are called for.

#### ■ Low emission engine use

Shell Rimula R5 LE meets the requirements of the major European engine manufacturers for low emission applications.

### Specifications, Approvals & Recommendations

- Caterpillar: ECF-3, ECF-2
- Cummins: CES 20081
- Mack: EO-O Premium Plus
- MTU: Cat 2.1
- MAN: M 3575
- MB Approval: 228.31
- DDC: 93K218
- Renault: VI RLD-3
- Volvo: VDS-4
- API: CJ-4
- ACEA: E9, E7
- JASO: DH-2

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 R5 LE 10W-40 (CJ-4/228.31)
Viscosity Grade				10W-40
Kinematic Viscosity	@40°C	mm <sup>2</sup> /s	ASTM D445	96.5
Kinematic Viscosity	@100°C	mm <sup>2</sup> /s	ASTM D445	14.3
Dynamic Viscosity	@-25°C	mPa s	ASTM D5293	6700
Viscosity Index			ASTM D2270	152
Total Base Number		mg KOH/g	ASTM D2896	10.1
Sulphated Ash		%	ASTM D874	1
Density	@15°C	kg/l	ASTM D4052	0.866
Flash Point (COC)		°C	ASTM D92	221
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

Shell Rimula R5 LE 10W-40 (CJ-4/228.31) 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.