



Shell Rimula X Monograde

High quality, heavy duty monograde diesel engine oil

Rimula X monograde oils are high quality heavy duty engine lubricants designed for use in diesel engines where monograde oils are specified.

Applications

- **Dedicated diesel engine oil performance**
Rimula X 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. Rimula X monogrades offer premium performance and protection for these applications.
- **Stationary Equipment**
Rimula X monogrades are suitable for certain stationary equipment, such as pumps, that run continuously under steady state conditions.

Performance Features and Benefits

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

Specification and Approvals

| | |
|---------------|------------|
| ACEA | - E2* |
| API | - CF |
| Mercedes-Benz | - 228.0** |
| MAN | - 270** |
| MTU | - Type 1** |

*SAE 40 and 50 grades only

** SAE 30 and 40 grades only

Detroit Diesel Two-stroke engines

Rimula X 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.

Shell recommends Rotella DD+ 40 for these applications.

Advice

Advice on applications not covered in this leaflet may be obtained from your Shell Representative.



Health and Safety

Guidance on Health and Safety are available on the appropriate Material Safety Data Sheet, which can be obtained from your Shell representative.

Protect the environment

Take used oil to an authorized collection point. Do not discharge into drains, soil or water.

Typical Physical Characteristics

| Rimula X | | 10W | 20W-20 | 30 | 40 | 50 |
|----------------------------|-------------------------------|------|--------|-----|------|-----|
| SAE Viscosity grade | | 10W | 20W-30 | 30 | 40 | 50 |
| Kinematic Viscosity | ASTM D 445 | | | | | |
| at 40°C | mm ² /s | 43 | 68 | 93 | 140 | 212 |
| at 100°C | mm ² /s | 7 | 8,8 | 11 | 14,5 | 19 |
| Dyn. Viscosity | ASTM D 5293 | | | | | |
| at -25°C | mPa*s | 6240 | | - | - | - |
| at -15°C | mPa*s | | 8910 | | | |
| Viscosity Index | ISO 2909 | 122 | 102 | 103 | 102 | 100 |
| Density at 15°C | kg/m ³ ASTM D 4052 | 885 | 890 | 890 | 895 | 895 |
| Flash Point COC | °C ISO 2592 | 219 | 236 | 242 | 250 | 252 |
| Pour Point | °C ISO 3016 | -33 | -21 | -18 | -15 | -9 |

These characteristics are typical of current production. Whilst future production will conform to Shell's specification, variations in these characteristics may occur.