



USA 15

Penrite USA 15 is a SAE 15W-40 semi-synthetic, high performance oil formulated with additives of the highest standards to ensure protection against oil thickening, wear, corrosion, oil oxidation and sludge. Penrite USA 15 meets the requirements of API CI-4 PLUS/SL and ACEA E5.

APPLICATION

Penrite USA 15 is specifically designed for use in post 1998 low emission American diesel engines, both naturally aspirated and turbocharged.

The new high dispersant, enhanced anti wear formulation is suitable for use in 2003-4 low emission US engines that use with cooled EGR as well as in Caterpillar ACERT engines.

May be used at the recommended drain intervals in engines manufactured by:

| | | |
|------------|-----------------|-------------|
| Cummins | Detroit Diesel* | Caterpillar |
| Mack | Onan | Case |
| John Deere | Ford | Waukesha |

May also be used in four stroke engines manufactured by*:

| | | |
|---------------|-------|-----------|
| Mercedes Benz | MAN | Scania |
| Volvo | MTU | Hino |
| Renault | DAF | Leyland |
| Deutz | Iveco | UD Nissan |

| | | |
|---------|-------------|----------|
| Perkins | Rolls Royce | Liebherr |
| Fiat | Lombardini | Komatsu |
| Bedford | Daewoo | Mitsubis |
| Yanmar | Kubota | Hitachi |

*Our prime recommendations are Penrite Euro 15 for European diesel engines, and Penrite Japan 15, for Japanese diesel engines. Detroit Diesel Two Stroke engines, use Penrite Mono 40 or 50.

CUSTOMER BENEFITS

- Greater engine protection at high operating temperatures.
- Controls oil consumption through use of low volatility synthetic base oils.
- Advanced formulation offers ideal wear and deposit protection for post 1998 low emission American engines.
- Good mixed fleet oil for predominantly American engined fleets
- Reduces soot thickening, including in the latest US low emission engines.

SPECIFICATIONS

Penrite USA 15 meets the requirements of:
 API CI-4 PLUS/SL ACEA E5 (Europe)
 Caterpillar ECF-I MTU Type I
 MAN 271 Cummins CES
 20076/20078
 Mack EO-N Premium Plus 03 Mercedes Benz 228.3/229.1

Typical Properties

| | |
|--|-------|
| Density at 15°C, kg/L | 0.878 |
| Viscosity, Kinematic, cSt at 40°C | 121 |
| at 100°C | 15.3 |
| Viscosity Index | 132 |
| High Temperature/High Shear Viscosity, cP at 150°C | 4.1 |
| Viscosity, Kinematic, cSt at 100°C after 90 cycle shear test | 13.4 |
| Cold Cranking Viscosity, cP at -20°C | 5218 |
| NOACK Volatility, mass % | 12.2 |

Environment, Health and Safety

Information is available by request on this product in the Penrite Material Safety Data Sheet. Information in this sheet is based on the most current information available. Minor variations to typical properties not affecting the performance of the product are to be expected in normal manufacture.