



Product Data Sheet

OPTIMA D1

Product Description:

Optima D1 diesel engine oil is specially formulated to address the need of an economic product that possesses strong performance for the often heavily loaded diesel engines of the past generation.

Optima D1 diesel engine oil 's viscosity and TBN value are optimized to enhance its performance at high temperature now commonly encountered in today's more powerful diesel engines. With exceptional high viscosity index, Optima D1 diesel engine oil gives better viscosity response towards temperature changes and therefore the engines can start much easier and oil can reach critical engine parts faster when the engine starts. The enriched and improved detergent contained in the Optima D1 diesel engine oil also reduces high temperature carbon deposit significantly, which in turn decreases oil consumption in long run. Higher base number of the product neutralizes acidic materials created during fuel combustion for longer run resulting in better protection from corrosion.

Applications / Benefits:

- ▣ Promotes engine protection.
- ▣ Recommended for both gasoline and diesel engines.
- ▣ Maintains engines at design operating temperature.
- ▣ Contains anti-wear and anti-corrosion additives.
- ▣ Reduces oil consumption

Typical Characteristics:

| Test Description | Method | 30 | 40 | 50 | 15W40 | 20W50 |
|---------------------------------|-------------|-------|-------|-------|-------|-------|
| SAE Viscosity Grade | SAE J 300 | 30 | 40 | 50 | 15W40 | 20W50 |
| Specific Gravity @ 15 °C | ASTM D 4052 | 0.874 | 0.881 | 0.889 | 0.872 | 0.877 |
| Flash Point, °C | ASTM D 92 | 230 | 235 | 258 | 222 | 242 |
| Pour Point, °C | ASTM D 97 | -21 | -18 | -15 | -27 | -21 |
| Kinematic Viscosity, cSt @ 40°C | ASTM D 445 | 100 | 138.6 | 210.3 | 115.1 | 175.1 |
| cSt @ 100°C | ASTM D 445 | 11.5 | 14.8 | 19.1 | 15.0 | 18.8 |
| Viscosity Index | ASTM D 2270 | 102 | 108 | 102 | 135 | 121 |
| TBN, mgKOH/g | ASTM D 2896 | 6.7 | 6.7 | 6.7 | 6.7 | 6.7 |
| Color | ASTM D 1500 | <1.5 | 1.5 | <2.0 | <1.5 | <1.5 |

Specifications, Approvals & Recommendations:

- API CD/SF

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