



Product Data Sheet

HEAVY DUTY DIESEL ENGINE OIL SAE 10W-30

BRAD PENN® Heavy Duty Diesel Engine Oil SAE 10W-30 is formulated with high quality paraffinic base oils and a select additive system to provide excellent performance and protection in today's high output, high performance heavy-duty diesel engines. It is fortified with advanced technology detergents, dispersants, antiwear, and anti-corrosion additives to provide protection against engine sludge, varnish formation, scuffing and wear, and high temperature oil thickening.

BRAD PENN® Heavy Duty Diesel Engine Oil SAE 10W-30 is a premium engine oil designed for all-season use in over-the-road and off-road diesel equipment. It provides good low temperature flow properties of SAE 10W grade for cold engine start-ups and the higher temperature protection properties of SAE 30 at normal operating temperature. It is recommended for mixed fleet applications that include naturally aspirated and turbo charged diesel engines as well as gasoline engines requiring API Service Category SM. It also provides effective control of acidic by-products formed as a result of diesel fuel combustion. **BRAD PENN® Heavy Duty Diesel Engine Oil SAE 10W-30** is an API CJ-4/SM qualified oil approved by Detroit Diesel for conformance to DFS Oil Specification 93K218, conforms to Cummins Engineering Specification CES 20081, Volvo VDS-4, Mack EO-O Premium Plus and Renault VI RLD-3 approved and is fit for use in the following applications: Caterpillar ECF-1-a, ECF-2 and ECF-3; Ford WSS-M2C-171E; API Service Categories CI-4 PLUS, CI-4, CH-4, CG-4, CF-4, CF/SL, SJ.

BRAD PENN® HD Diesel Engine Oil 10W-30 - Typical Properties

| SAE Grade | | 10W-30 |
|------------------------|--------------------|-------------|
| API Service | Test Method | CJ-4/SM |
| Gravity, API | ASTM D-4052 | 31.3 |
| Density, lbs/gal (g/L) | Calculated | 7.238 (867) |
| Viscosity, cSt @ 40°C | ASTM D-445 | 83 |
| Viscosity, cSt @ 100°C | ASTM D-445 | 12.20 |
| Viscosity Index | ASTM D-2270 | 147 |
| CCS, cP @ -25°C | ASTM D-5293 | 6,200cP |
| MRV @ -30°C | ASTM D-4684 | 35,000 |
| Pour Point, °C (°F) | ASTM D-5949 | -35 (-36) |
| Flash Point, °F (°C) | ASTM D-92 | 410 (210) |
| Color | ASTM D-1500 | 4.0 |
| TBN | ASTM D-974 | 8.7 |
| Sulfated Ash, mass % | ASTM D-874 | 1.0 |
| Product Code | | 7198 |