



High Mileage Engine Oils

Mighty Engine Guard High Mileage oils have ingredients designed to enhance the condition of older engines. Additives like conditioners, seal swell agents, antioxidants, detergents and wear or friction modifiers. Typically, they also include a viscosity modifier that are designed to reduce a lubricant's change in viscosity when subjected to changes in temperature. These oils need to stay thicker longer to protect engine parts. The special additive package is created for higher mileage motors that need the extra components in the motor oil to maintain optimum performance for these conditions.

Features and Benefits







- ✓ *Minimizes oil consumption and maximizes power output.*
- ✓ *Resists thermal breakdown and decreases deposit formation for longer, better engine protection than conventional oils.*
- ✓ *Provides a strong film barrier to control friction, resist wear and keep metal surfaces from coming into contact.*
- ✓ *Optimizes engine life for vehicles with more than 75,000 miles. It provides extra protection compared with conventional oils, plus conditions seals to help prevent leaks.*
- ✓ *Unsurpassed wear protection. Advanced molecules bond together to prevent metal-to-metal contact of rotating engine parts.*
- ✓ *Retains viscosity and prevents thermal breakdown. The oil excels even in the harshest conditions.*



Industry/OEM Specifications and Licenses

Available Package Sizes

| Viscosity |  Bag N' Box |  Drums |  Totes |  Bulk |
|--------------------|---|---|---|--|
| 5W/20 High Mileage | ✓ | ✓ | | * |
| 5W/30 High Mileage | ✓ | ✓ | | * |

High Mileage Engine Oils

Typical Properties

| Title | | Syn Blend HM 5W-20 | Syn Blend HM 5W-30 |
|--|---------------------|--------------------|--------------------|
| Boron, wt. % | ASTM D5185 | 0.02 | 0.02 |
| Calcium, wt. % | ASTM D5185 | 0.99 | 0.99 |
| Cold Cranking Simulator at (°F), cP | ASTM D5293 | 5,000 (-30) | 5,500 (-30) |
| Color | ASTM D1500 | 3 | 3 |
| Flash Point °C | ASTM D92 | 206 | 204 |
| Flash Point °F | ASTM D92 | 403 | 399 |
| Foam Seq. III (Tendency/Stability), mL | ASTM D892 (Opt. A) | 0/0 | 0/0 |
| Foam Seq. II (Tendency/Stability), mL | ASTM D892 (Opt. A) | 0/0 | 0/0 |
| Foam Seq. I (Tendency/Stability), mL | ASTM D892 (Opt. A) | 0/0 | 0/0 |
| Gravity, °API | ASTM D287 | 32.37 | 33.44 |
| High Temperature Foaming, static foam | ASTM D6082 (Opt. A) | 30/0 | 30/0 |
| High Temperature / High Shear Vis @ 100°C, cP | ASTM D6616 | 6.01 | 6.94 |
| High Temperature / High Shear Vis at 150°C, cP | ASTM D5481 | 2.72 | 3.14 |
| Magnesium, wt. % | | 0.059 | 0.059 |
| Molybdenum, wt. % | ASTM D5185 | 0.0079 | 0.0079 |
| Nitrogen, wt. % | ASTM D4629 | 0.087 | 0.087 |
| Noack Volatility, % loss | ASTM D6375 | 14.8 | 14.2 |
| Phosphorus, wt. % | ASTM D5185 | 0.077 | 0.077 |
| Pour Point °C (°F) | ASTM D5950 | -45°C (-49°F) | -45°C (-49°F) |
| Pumping Viscosity at (°C), cP | ASTM D4684 | 23,600 (-35) | 28,400 (-35) |
| Shear Stability, Final Viscosity in cSt | ASTM D678 | 7.31 | 8.5 |
| Specific Gravity @ 60°F (15.6°C) | ASTM D4052 | 0.8635 | 0.8579 |
| Sulfated Ash, wt. % | ASTM D874 | 0.92 | 0.92 |
| Sulfur, wt. % | ASTM D4951 | 0.3 | 0.3 |
| TBN, mgKOH/g | ASTM D2896 | 7.0 | 7.0 |
| Viscosity @100°C cSt | ASTM D445 | 8.738 | 10.78 |
| Viscosity @ 40°C cSt | ASTM D445 | 51.33 | 63.51 |
| Viscosity Index | ASTM D2270 | 152 | 163 |
| Zinc, wt. % | ASTM D5185 | 0.085 | 0.085 |

Industry/OEM Approvals

| Title | Syn Blend HM 5W-20 | Syn Blend HM 5W-30 |
|-------------------------------------|--------------------|--------------------|
| API SP with Resource Conserving | Approved | Approved |
| Chrysler MS-10797 | Meets Requirements | - |
| Chrysler MS-6395 | Meets Requirements | Meets Requirements |
| Ford WSS M2C945-A, M2C930-A, M2C153 | Meets Requirements | - |
| GM 6094M | Meets Requirements | Meets Requirements |
| ILSAC GF-6A | Meets Requirements | Meets Requirements |
| Ford WSS M2C946-A, M2C929-A | - | Meets Requirements |

*Check for availability.

MLP106