STARFIRE Full Synthetic 5W40 HD Engine Oil

STARFIRE Full Synthetic 5W40 HD Engine Oil is specially engineered for heavy duty diesel and gasoline engines operating under all service conditions. It is formulated using premium synthetic base oils and advanced additive technology to provide the ultimate protection against wear, soot control, and extended drain protection. The low viscosity, full synthetic base stocks increase oil flow at cold engine start ups in sub-zero temperatures, thereby reducing friction and wear due to lack of oil flow.

**BENEFITS**
- Wear protection formulated to meet or exceed API CK-4 and the toughest OEM specifications
- High detergent and superior dispersancy keep engines and pistons clean and soot suspended in the oil despite longer drain intervals and increased soot loading
- Higher starting TBN (10.0) provides added oxidation control and protection against acid build-up that can cause rust and corrosion
- Excellent TBN retention
- Excellent oxidation control and piston cleanliness

**APPLICATION**
- API CK-4, CJ-4, CI-4 Plus, CI-4, CH-4, CD, SN, SM, SL, SJ, SH, SG
- ACEA E7-12, E9-12
- Caterpillar ECF-3, ECF-2, ECF-1a
- Cummins CES 20081, 20086
- DAF
- Detroit Fluids Specification (DFS) 93K222, 93K218, 7SE-270, 2000/4000 Category 1
- Deutz DQC III-10-LA
- Ford WSS-M2C171-F1
- Global Specification DHD-1
- Inveco
- JASO DH-1 and DH-2
- Mack EOS 4.5, EO-O Premium Plus-07
- MAN 3575, 271, 3275
- Mercedes Benz MB 228.3, 228.31, 228.5, 229.1, 229.5
- MIL-PRF-2104H
- MTU Type II
- Navistar
- Renault RLD-4, RLD-3
- Scania LD-F, LDF-2
- Volvo VDS-4.5, VDS-4

**TYPICAL PROPERTIES**

<table>
<thead>
<tr>
<th>SAE Grade</th>
<th>5W40</th>
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<tbody>
<tr>
<td>Pour Point, °C</td>
<td>-41</td>
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<tr>
<td>Viscosity: cSt @ 40°C</td>
<td>81.3</td>
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<tr>
<td></td>
<td>cSt @ 100°C</td>
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<tr>
<td>Viscosity Index</td>
<td>165.8</td>
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<tr>
<td>Cold Crank Simulator, cP</td>
<td>6110.4 (-30°C)</td>
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<tr>
<td>Density (lb/gal)</td>
<td>7.1</td>
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<td>Color</td>
<td>3.8</td>
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