**DIAMOND SYNTHETIC®** SAE 5W-40 API CK-4 ENGINE OIL

**ADVANCED TECHNOLOGY, PREMIUM SYNTHETIC LUBRICANTS**

**DURAGARD®** DIAMOND SYNTHETIC® 5W-40 API CK-4 ENGINE OIL is an extreme performance (HTHS) high-temperature, high-shear viscosity fully synthetic oil formulated to meet high-performance demands with long drain capabilities, possible increase in fuel efficiency and reduced over all costs. CK-4 will deliver more oxidization protection for hotter, heavy-duty engines, minimizing acid formation, deposits and viscosity increase, promoting reduced wear, improved shear stability, greater oxidation stability, and foam prevention. Suitable for mixed fleets.

**DURAGARD®** DIAMOND SYNTHETIC® 5W-40 API CK-4 ENGINE OIL is a new formula that is specifically engineered for use in mixed fleets, gasoline and diesel. CK-4 has a select additive package for exceptional performance at high temperatures and heavy loads with improved engine protection over previous CJ-4 formulas. The advance in oil technology standards establishes an oil quality specification that helps protect today and tomorrow diesel engines.

**DURAGARD®** DIAMOND SYNTHETIC® 5W-40 API CK-4 ENGINE OIL is a direct replacement for CJ-4 using the same viscosity grades in Synthetic oil types providing protection for all future engine designs, while improving protection of current and previous engines. CK-4 and CJ-4 can be mixed and should have no detrimental impact to engines. However, it is recommended to completely change over to CK-4 oil by using a hot drain of the CJ-4 oil to help minimize residual oil and achieve full benefits of the new oil. Fleets using CJ-4 should implement a secondary storage for CK-4 or completely empty a CJ-4 tank before filling with Duragard® Diamond Synthetic® SAE 5W-40 API CK-4 Engine oil.

Customer Benefits with **DURAGARD®** DIAMOND PLATE PROTECTION®

* Meets or Exceeds warranty requirements of engine manufacturers that require a type API CK-4/SN premium 100% synthetic SAE 5W-40 motor oil.
* Exceeds performance of current API CJ-4 oils.
* (HTHS) High-temperature, High-shear viscosity.
* Improved shear stability
* More oxidization protection for hotter, heavy-duty engines
* Minimizes acid formation
* Reduced deposits
* Extended drain intervals
* Backwards compatible for all engines currently requiring CJ-4
* Meets current 2017 and newer specifications requiring CK-4
* Meets FORD WSS-M2C171-F1 2017 & prior specifications.
Application Specifications:

**DURAGARD DIAMOND SYNTHETIC® 5W-40 API CK-4 ENGINE OIL**

This product meets, or exceeds the requirements similar to the following manufacturers and global specifications:

### 2017 and Newer Compatibility
- **API CK-4 SN**
- Cummins 20086
- Detroit Diesel 938K222
- Ford WSS-M2C171-F1
- Mack EOS-4.5
- MAN 3575
- MTU 2.1
- Renault RLD-4
- Volvo VDS-4.5

### 2016 and Prior Backwards Compatibility
- **API CJ-4, CI-4 PLUS, CI-4, CH-4, CG-4, CF-2, CF**
- **API SM, SL, SJ, SH, SG, SF, SE, SD, SC**
- Ford WSS-M2C171-D
- Global DHD-1/DH-1
- INTERNATIONAL HARVESTER
- John Deere
- JASO DH-2
- J.I. CASE
- KUBOTA
- Mack EO-O PREM PLUS, EO-O ’07, EO-N PREM /
  PLUS ’03, EO-M, EO-M PLUS, EO- O/N/M/L/
- MERCEDES 228.5, 228.31, 228.3
- Mercedes
- MTU TYPE I, TYPE II
- Navistar TSI-85-6
- Renault RLD-3
- White/Volvo VDS-4, VDX-3, VDS-2

Consult your manufacturer’s specifications for information and use.

**Product Containers Available:**
- Bulk * 55 gal.
- * 30 gal.
- * 5 gal. pails
- * 2.5 gal/2pk
- * 1 gal./3pack

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### Typical Physical Specifications:

**SAE Grade 5W-40**  
**Product Code:** DURCK45/40SYNxx

### INSPECTION INFORMATION

<table>
<thead>
<tr>
<th>Test Information</th>
<th>Test Method</th>
<th>Typical Value</th>
</tr>
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<tbody>
<tr>
<td>Gravity, °API</td>
<td>ASTM D287</td>
<td>33.57</td>
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<tr>
<td>Specific Gravity @60°F (15.6°C)</td>
<td>ASTM D4052</td>
<td>0.8572</td>
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<tr>
<td>Viscosity @ 40°C cSt</td>
<td>ASTM D445</td>
<td>87.75</td>
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<tr>
<td>Viscosity @ 100°C cSt</td>
<td>ASTM D445</td>
<td>14.76</td>
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<tr>
<td>Viscosity Index</td>
<td>ASTM D2270</td>
<td>177</td>
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<tr>
<td>Pour Point °C (°F)</td>
<td>ASTM D5950</td>
<td>-45 °C (-49 °F)</td>
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<tr>
<td>Cold Cranking Simulator at (°C), cP</td>
<td>ASTM D5293</td>
<td>6535 (-30)</td>
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<tr>
<td>High Temperature / High Shear Vis at 150 °C, cP</td>
<td>ASTM D5481</td>
<td>3.5</td>
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<tr>
<td>Noack Volatility, % loss</td>
<td>ASTM D6375</td>
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<tr>
<td>Color</td>
<td>ASTM D1500</td>
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<tr>
<td>Zinc, wt. %</td>
<td>ASTM D5185</td>
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<tr>
<td>Phosphorus, wt. %</td>
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<tr>
<td>Calcium, wt. %</td>
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<tr>
<td>Sulfur, wt. %</td>
<td>ASTM D4951</td>
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<tr>
<td>Magnesium, wt. %</td>
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<td>Sulfated Ash, wt. %</td>
<td>ASTM D874</td>
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<tr>
<td>Nitrogen, wt. %</td>
<td>ASTM D4629</td>
<td>0.124</td>
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<tr>
<td>Pumping Viscosity at (°C), cP</td>
<td>ASTM D4684</td>
<td>24,113 (-35)</td>
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<tr>
<td>TBN, mgKOH/g</td>
<td>ASTM D2896</td>
<td>10</td>
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</tbody>
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Typical test data average values only, minor variations which do not affect product performance are to be expected during normal manufacturing.

**READ ENTIRE SDS BULLETIN FOR HANDLING AND SAFETY INFORMATION**