



## **PureSYN HD 15W-40**

**PureSYN HD 15W-40 is an API CK-4 full synthetic heavy-duty motor oil that meets and exceeds the service requirements of virtually all diesel engine manufacturers. PureSYN HD 15W-40 is formulated for engines operating under severe service and a wide range of temperature conditions.**

PureSYN HD 15W-40 is formulated with premium synthetic base oils optimal for improved heat and oxidation resistance compared to conventional fluids. Low volatility reduces oil consumption and emissions. An advanced additive system provides superior wear and deposit protection during cold engine start-up through maximum operating temperatures. It provides superior soot control and an excellent detergent system for outstanding engine cleanliness, extending the life and optimizing service intervals for 2007 Exhaust Gas Recirculation (EGR) systems with Diesel Particulate Filters (DPF) and 2010 Selective Catalytic Reduction (SCR) with DPF low emission engines.

### **APPLICATIONS**

PureSYN HD 15W-40 is a mixed fleet motor oil recommended for use in four-stroke engines calling for an API CK-4 service category and SAE 15W-40 viscosity grade.

- Engines recommending API CK-4, CJ-4, CI-4 Plus, CI-4, SN, SM, SL
- Recommended for use in naturally aspirated and turbocharged four-stroke diesel and gasoline engines
- 2007 and 2010 emission compliant engines utilizing EGR & SCR with DPF
- Older engines in on-highway and off-highway service
- Exceptional performance with on-highway and off-highway diesel fuels

### **FEATURES AND BENEFITS**

- Meets and exceeds requirements of high performance low emission diesel engines while providing excellent performance in older engines allowing operators the use of one fluid for a mix of engine brands
- Simplifies inventory by using one oil for all four stroke engines, both diesel and gasoline
- Improved wear protection, deposit and viscosity control and oxidation resistance
- Viscosity index improver provides exceptional low temperature flow properties for cold starts
- Provides superior soot control and an exclusive detergent system for outstanding engine cleanliness, helps avoid filter plugging, cylinder head sludge, abrasive polishing wear and oil gelling
- Excellent protection against valve train, piston ring and liner wear to help prolong engine life
- Outstanding shear stability for viscosity control
- Maximizes vehicle utilization and minimizes downtime

### **RECOMMENDED PERFORMANCE SPECIFICATIONS**

- API Service Categories: CK-4, CJ-4, CI-4 Plus, CI-4, SN, SM, SL
- ACEA E7
- Caterpillar ECF-1-a, ECF-2, ECF-3
- Cummins 20081
- Daimler MB 228.31
- DDC 93K218
- Mack EO-O Premium Plus 07
- Renault RLD-3
- Volvo VDS-4
- Ford WSS M2C171-F1



<b>PureSYN HD 15W-40 CJ-4</b>	<b>Typical Characteristics</b>	
	<i>Test Method ASTM -D</i>	<i>SAE Viscosity Grade</i>
		15W-40
<i>Flash Point, COC °C/°F</i>	92	224/435
<i>Pour Point, °C/°F</i>	97	-39/-38
<i>Viscosity</i>		
<i>cSt @ 40 °C</i>	445	106
<i>cSt @ 100 °C</i>	445	14.9
<i>Viscosity Index</i>	2270	156
<i>Sulfated Ash wt%</i>	874	1.0 max
<i>Total Base Number</i>		9.6

*Minor variations in test data are to be expected in normal manufacturing*