

# THRIVE® Diesel Engine Oil

## HIGH PERFORMANCE OIL FOR YOUR DIESEL ENGINE

**THRIVE® Diesel Engine Oils** are formulated with the use of next-generation, fuel-efficient additive technology. It meets or exceeds nearly all the next-generation OEM specifications including those from Ford, Cummins, Detroit Diesel, Mack, Volvo, Renault, Mercedes, MAN and Deutz. It can be recommended for new engines requiring CK-4 fluid and is backward compatible with API CJ-4, CI-4+, CI-4, and CH-4.

**THRIVE® Diesel Engine Oils** offer increased fuel economy by using a combination of conventional and synthetic base oils and advanced friction modifiers.

**THRIVE® Diesel Engine Oils** are formulated exclusively with high purity conventional and Group III base stocks.



### FEATURES/BENEFITS

- Increased fuel economy
- Reduced CO<sub>2</sub> emissions
- Superior oxidation and oil consumption control
- Enhanced valve train wear control
- Excellent bearing and ring liner wear control
- Improved control of oil thickening due to soot buildup

**THRIVE® Diesel Engine Oils** exceed the rigorous industry engine performance requirements for the API Engine Oil Licensing and Certification System (EOLCS) and have been tested in accordance with the CMA code of practice.

Typical Physical & Chemical Properties*	15W-40 CK-4	10W-30 CK-4
Product Numbers	067	057
Density, lb/gal	7.16	7.22
Viscosity @ 100°C cSt/@ 40°C cSt	15.5 / 114.2	12.2 / 81.7
Flash Point, °C	208	204
Pour Point, °C	-25	-35
Viscosity Index	143	145
CCS Viscosity cP max	6,110 (-20°C)	6,200 (-25°C)
HTHS Viscosity cP min	3.7	2.9
Zinc % wt. typical	0.127	0.127
Phosphorus % wt. typical	0.115	0.115
TBN	10.0	10.0

### Performance Properties

Product Name	Product Number	Industry and OE Specifications:
15W-40	067	API CK-4, CJ-4, CI-4 Plus, CI-4, CH-4; API SN; ACEA E11, E7, Mack EOS-4.5, EO-O Premium Plus, EO-N; Volvo VDS-4.5, VDS-4, VDS-3; Caterpillar ECF-3, ECF-2; Cummins CES 20086, 20081; Detroit Diesel DFS93K222, DFS 93K218; Diamler (Mercedes) MB 228.31; Ford WSS M2C171-F1; MAN M3775; MTU Cat. 2.1; Deutz DQC III-18 LA; Allison TES-439; JASO DH-2**; Renault RLD-4, RLD-3; PACCAR API CK-4
10W-30	057	API CK-4, CJ-4, CI-4 Plus, CI-4, CH-4; ACEA E11, E7, Mack EOS-4.5, EO-O Premium Plus, EO-N; Volvo VDS-4.5, VDS-4, VDS-3; Caterpillar ECF-3, ECF-2; Cummins CES 20086, 20081; Detroit Diesel DFS93K222, DFS 93K218; Diamler (Mercedes) MB 228.31; Ford WSS M2C171-F1; MAN M3775; MTU Cat. 2.1; Deutz DQC III-18 LA; JASO DH-2**; Renault RLD-4, RLD-3; PACCAR API CK-4

\*Typical Physical & Chemical Property values may vary based on regional availability. \*\*Engine test requirements.