

KLONDIKE SAE 10W-30 CK-4 Synthetic Blend Heavy Duty Engine Oil



PRODUCT DESCRIPTION

KLONDIKE SAE 10W-30 CK-4 Synthetic Blend Heavy Duty Engine Oil is a high performance engine oil recommended for modern naturally aspirated and turbocharged diesel engines in which SAE 10W-30 viscosity grade and API CK-4 service categories are specified.

APPLICATIONS

KLONDIKE SAE 10W-30 CK-4 Synthetic Blend Heavy Duty Engine Oil is specifically engineered for modern diesel engines operating under severe service in a wide range of climatic conditions and ambient temperatures. An ideal mixed fleet engine oil designed for naturally aspirated and turbocharged heavy duty diesel engines in mobile and stationary equipment where the API CK-4 service category and SAE 10W-30 viscosity grade are specified. KLONDIKE SAE 10W-30 CK-4 Synthetic Blend Heavy Duty Engine Oil is typically used in the same applications as SAE 15W-40 CK-4 but where greater fuel economy potential and superior cold start performance is desired. Advanced API CK-4 additive technology is fully backwards compatible with, and replaces, service categories CJ-4, CI-4 Plus, and previous.

All current manufacturers of heavy duty engines for on-road use in North America factory fill and recommend using the SAE 10W-30 viscosity grade for maximum service life and to meet their respective fuel economy targets. SAE 10W-30 typically offers fuel economy improvements of 1-2% when compared with SAE 15W-40 in the same applications.

Some typical applications include:

- Modern on-highway low emission diesel engines running on ultra-low sulfur diesel fuel.
- Modern off-highway engines including those adapted for future emissions standards in construction, agriculture, marine, and mining applications.
- Mixed fleets where product consolidation is desired for performance and economics



OEM certified by:



FEATURES AND BENEFITS

KLONDIKE SAE 10W-30 CK-4 Synthetic Blend Engine Oil is a premium heavy duty engine oil engineered to deliver outstanding wear protection and performance in modern heavy duty diesel engines. Ultrapure conventional and synthetic base oils carefully balanced with advanced additive technology ensure this heavy duty engine oil will deliver outstanding long-term performance for on- and off-highway heavy duty engine applications operating under high-load, high-stress conditions in all climates. Optimum base oil viscosity improves cold start efficiency and offers economy benefits as a result of lower coefficient of friction and reduced engine drag as compared with SAE 15W-40 engine oils.

KLONDIKE SAE 10W-30 CK-4 Synthetic Blend Heavy Duty Engine Oil contains field proven additive technology delivering maximum control on engine wear, outstanding engine cleanliness, and high TBN retention for outstanding lubricant life. Product is highly shear stable and retains OEM mandated HTHS (high temperature, high shear) viscosity under the most extreme conditions in the engine offering outstanding engine durability. Metal anti-wear protection exceeds API CK-4 standards and tough OEM specifications.

KLONDIKE SAE 10W-30 CK-4 Synthetic Blend Heavy Duty Engine Oil meets the stringent requirements of API Service Category CK-4 for heavy duty diesel engines running on Ultra Low Sulfur Diesel (ULSD) and equipped with after treatment devices. Exceeds all requirements of current emission control systems such as Exhaust Gas Recirculation (EGR), Diesel Particulate Filter (DPF), or Selective Catalytic Reduction (SCR) technologies.

KLONDIKE SAE 10W-30 CK-4 Synthetic Blend Heavy Duty Engine Oil delivers value through the following benefits:

- **Premium base oil blend** – excellent all-season performance characteristics.
- **Engine efficiency** – advanced technology keeps engine components clean and reduces oil consumption.
- **Outstanding anti-wear** – maximum engine durability in all service applications.
- **Emission compliant** – compliant with all emission control equipment and promotes extended DPF life.
- **Extended service life** – outstanding TBN and shear induced viscosity retention supports extended lubricant life.
- **Fuel economy** – lower coefficient of friction as compared with SAE 15W-40 oils offers fuel economy savings.



KLONDIKE SAE 10W-30 CK-4 Synthetic Blend Heavy Duty Engine Oil

SPECIFICATIONS AND APPROVALS

KLONDIKE SAE 10W-30 CK-4 Synthetic Blend meets the requirements of the following engine specifications:

- **ACEA** – European Service Categories E9, E7, E4, E2
 - **API Service Categories** – CK-4, CJ-4, CI-4 PLUS, CI-4 (and previous)
 - **Caterpillar**® – ECF-3, ECF-2, ECF-1a
 - **Cummins**® – CES 20086, 20081, 20078, 20077, 20076
 - **Daimler** – MB 228.31, 228.3
 - **Detroit Diesel**® – 93K222, 93K218, 93K215, 93K214
 - **Deutz** – DQC III-IOLA
 - **FORD** – WSS-M2C171-F1, WSS-M2C171-E
 - **Global** – DHD-1
 - **JASO** – DH-2
 - **Mack**® – EOS-4.5, EO-O Premium Plus, EO-N Premium Plus, EO-M
 - **MAN** – 3275, 3575
 - **MTU** – Type 2.1, Type I, Type II
 - **Renault**® – VI RLD-4, RLD-3
 - **Volvo**® – VDS-4.5, VDS-4, VDS-3, VDS-2
 - **CID A-A-52306 / MIL-PRF-2104G**
- Other suitable uses include (but not limited to):**
- **Caterpillar** – TO-2
 - **Allison**® – C-4
 - **ZF** – TE-ML 03K

Other applicable uses may exist. Please contact KLONDIKE for more information.

TYPICAL TECHNICAL PROPERTIES

PROPERTY	TEST METHOD	10W-30 CK-4 SYN BLEND
Gravity; °API	ASTM D287	31.4
Specific Gravity @ 15.6°C	ASTM D4052	0.868
Viscosity @ 40°C (cSt)	ASTM D445	79.6
Viscosity @ 100°C (cSt)	ASTM D445	12.0
Viscosity Index	ASTM D2270	148
Flash Point °C	ASTM D92	225
Pour Point °C	ASTM D5950	-46
Cold Cranking Simulator @ -25°C, cP	ASTM D5293	5900
High temp/high shear Vis @ 150°C, cP	ASTM D5481	3.5
NOACK Volatility, % loss	ASTM D6375	13
Color	ASTM D1500	2.5
Zinc, wt %	ASTM D5185	0.127
Phosphorus, wt. %	ASTM D5185	0.115
Calcium wt. %	ASTM D5185	0.105
Sulfur, wt %	ASTM D4951	0.32
Magnesium, wt %	ASTM D5185	0.1
Molybdenum, wt %	ASTM D5185	0.0066
Sulfated Ash, wt %	ASTM D874	0.99
Nitrogen, wt %	ASTM D4629	0.105
Pumping Viscosity @ (-30°C),cP	ASTM D4684	23,000
TAN, mgKOH/g	ASTM D664	2.9
TBN, mgKOH/g	ASTM D2896	10

All stated physical properties are typical of standard production and may vary.



KLONDIKE SAE 10W-30 CK-4 Synthetic Blend Heavy Duty Engine Oil

HEALTH AND SAFETY

This product is not expected to have adverse health implications when used for its intended application. For detailed information on safe handling of this product, refer to its Material Safety Data Sheet (MSDS). To obtain an MSDS on this or any other KLONDIKE product, please visit www.klondikelubricants.com or call 1-877-293-4691. When disposing of used product, be responsible to the environment.

DISCLAIMER

Always follow OEM recommendations for fluid viscosity and API service category. KLONDIKE takes no responsibility for product misuse or misapplication.

BRAVING THE FORCE OF MOVEMENT

KLONDIKE stands for robust, reliable, high quality products tailored to suit the requirements of the on- and off-road heavy duty, automotive and industrial markets. Our solutions span from trend-setting retail lubricants through small-batch custom formulations to large bulk orders ready for immediate delivery.

The extensive KLONDIKE product range includes premium oils, lubricants, greases, chemicals and specialty fluids formulated with virgin base oils and protective inhibitors. Designed to handle the most extreme climates and operating conditions, the KLONDIKE products protect and extend the life of your equipment, optimize performance and improve productivity while meeting and exceeding industry standards and specifications.

KLONDIKE Lubricants Corporation

Toll-free 1-877-293-4691

info@klondikelubricants.com
www.klondikelubricants.com

