CK-4 Premium Heavy Duty Engine Oil



PRODUCT DESCRIPTION

High Performance Lubricants Premium Heavy Duty CK-4 engine oil is one of 3 multi-synthetic engine oils we offer. Compared to our Heavy Duty CK-4 this group of formulations take advantage of an advanced VI improver that has a superior shear stability index. It is designed for equipment or service that is particularly harsh. These oils are not something you will find on the shelf of a discount retailer. If you are person looking for a product that will outperform traditional mineral and synthetic oils our products will be a perfect fit for you. We build our products to perform at higher standards rather than just clearing the minimum requirements set by OEM specifications. Choices are important when selecting raw materials for finished products. Good choices in formulation allow these oils to excel in extended drains in tough operating conditions. Premium additives coupled with base oils that have low volatility mean these oils can minimize consumption, reduce wear, provide lower coefficient of friction, have much greater oxidation stability, and will run very clean in service.

High Performance Lubricants Heavy Duty CK-4 engine oil for cold climates is one of 3 multi-synthetic engine oils we offer. Compared to our other groups in this series of formulations the cold climate products take advantage of high performing PAO base stocks that deliver excellent pour points and cold temperature performance. It also uses an advanced VI improver that has a superior shear stability index. It is designed for equipment, environment or service that is particularly harsh.

<u>FEATURES</u>

- Excellent wear protection and superior high temperature stability
- Compatible with conventional and synthetic oils
- Good low temperature performance
- Maintains elastomer pliability

- Improved fuel economy
- Excellent shear stability
- Extended drain intervals over rivals
- Prevents sludge and varnish
- Exceptional corrosion protection



815.468.3535 - www.hplubricants.com

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Typical Properties

	Method	Cold Climate		5W-30	5W-40	10W-40	15W-40
		0W-30	5W-40	577-30	577-40	1044-40	1577-40
Viscosity							
cSt@40°C	ASTM D445	59.89	85.69	63.7	86.79	100.5	104.8
cSt@100°C	ASTM D445	10.61	14.62	10.69	14.30	14.71	14.8
Viscosity Index	ASTM D2270	169	179	159	171	152	147
Cold Crank Simulator (cP)	ASTM D5293	5,314@-35C	3,551@-30C	5,707@-30C	5,962@-30C	6,470@-25C	4,493@-20C
Base Number (BN), mg KOH/g	ASTM D2896	>13.5	>13.5	>13.5	>13.5	>13.5	>13.5
Flash Point (°C/°F)	ASTM D92	217/423	217/423	213/415	213/415	219/426	229/444
Foaming Tendency - Sequence II	ASTM D892	0/0/0	0/0/0	0/0/0	0/0/0	0/0/0	0/0/0
Specific Gravity	ASTM D1298	0.860	0.865	0.873	0.872	0.878	0.882
Rust Prevention	ASTM D665	Pass	Pass	Pass	Pass	Pass	Pass
Copper Corrosion Prevention 3hr/24hr	ASTM D130	1a/1a	1a/1a	1a/1a	1a/1a	1a/1a	1a/1a
Pour Point (°C/°F)	ASTM D97	-62/-80	-56/-69	-43/-45	-41/-42	-40/-40	-44/-47
High Temp High Shear Visc, cP	ASTM D5481	3.059	3.927	3.136	4.043	4.151	4.204
MRV Viscosity, cP	ASTM D4684	19,838@-40C	15,014@-35C	21,075@-35C	32,016@-35C	27,480@-30C	14,465@-25C

NOTE: Properties above are not a specification, they are typical and may vary.

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Suitable replacement for:

API CK-4, CJ-4, CI-4 PLUS, CI-4, CH-4⁽²⁾ API SN, SM, SL, SJ⁽²⁾ ALLISON TES 439⁽¹⁾ ACEA 2016 E7/E9⁽²⁾ CAT ECF-3, ECF-2⁽²⁾ DAIMLER 228.31⁽²⁾ DDC DFS 93K222, DFS 93K218⁽²⁾

FORD WSS-M2C171-F1⁽¹⁾ JASO DH-2⁽¹⁾ MACK EOS-4.5, EO-O Premium Plus, EO-N⁽²⁾ MAN M3775⁽²⁾ MTU Category 2.1⁽²⁾ RENAULT RLD-4, RLD-3⁽²⁾ VOLVO VDS-4.5, VDS-4, VDS-3⁽²⁾ (1) 15W-40 (2) 10W-40, 15W-40