

Cat® DEO Cold Weather

Cat® ECF-3 / API CK-4 Engine Oil

SAE 0W-40



Best Performance and Protection for Cold Weather Applications

Cat® DEO Cold Weather is a synthetic diesel engine oil designed with an extremely stable formula tailored to provide long-lasting engine protection over a wide temperature range, -40°F (-40°C) to 122°F (50°C). The backwards compatibility of Cat DEO Cold Weather makes it well suited for mixed fleets of new and old machines. When used in engines equipped with emissions reduction technologies, Cat DEO Cold Weather delivers the full life and performance of aftertreatment components. Cat DEO Cold Weather exceeds the performance requirements of Cat ECF-3 (Engine Crankcase Fluid Specification) and the API CK-4 and API SM categories.

Cat DEO Cold Weather takes the trouble out of starting your engine when temperatures are very low. The special formulation flows readily at low temperatures, reducing startup wear and improving fuel economy in some applications. The outstanding thermal stability and oxidation resistance of Cat DEO Cold Weather keeps engine components cleaner, further reducing wear. In testing, Cat DEO Cold Weather was shown to reduce piston deposits by more than 30% and to have more than 80% better viscosity control than ECF-3 standards. These results demonstrate that Cat DEO Cold Weather will help lower your owning and operating costs through fewer oil changes and repairs.



Benefits

- Easier Engine Starts – Excellent low temperature performance eliminates hard starts
- Reduced Engine Wear – Improved detergents keep engine components cleaner
- Minimized Deposits – Reduced oxidation breakdown and thermal degradation improves stability which minimizes the formation of deposits, sludge, and varnish
- Full Component Life – Specially designed additives deliver superior engine protection while supporting consistent emissions performance and extending the life of aftertreatment system components
- Extended Drain Intervals – When regular S•O•SSM Oil Analysis is utilized, long oil life is possible

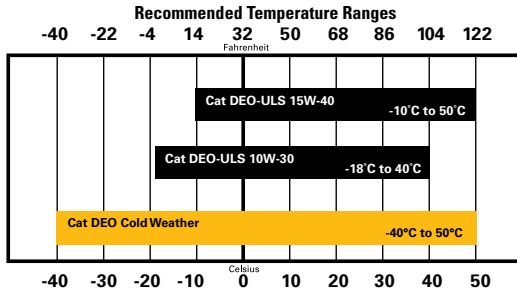


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Improved Engine Starting Ability

Hard starts are a problem in cold weather. This is bad for your engine because a significant amount of piston and ring wear occurs when oil is below its proper operating temperature.

The low temperature performance of Cat DEO Cold Weather makes starting your engine easier when the thermometer dips far below freezing.



Typical Characteristics*	
SAE Viscosity Grade	0W-40
API Service Category: Diesel Gasoline	CK-4 SN
OEM Performance Level: Caterpillar Volvo Cummins Mack Ford	ECF-3 VDS-4.5 CES 20081, 20086 EOS-4.5 WSS-M2C171-F1
Flash Point °C (°F) (ASTM D92)	215 (419)
Pour Point °C (°F) (ASTM D92)	-45 (-49)
Viscosity: cSt @ 40° C (ASTM D445) cSt @ 100° C (ASTM D445)	15.2 87
Viscosity Index (ASTM D2270)	186
TBN, mg KOH/g (ASTM D2896)	7.8
Sulfated Ash, % wt (ASTM D874)	.96
Phosphorus, % wt (Spectro or AA)	.11
Sulfur, % wt (ASTM D2622)	.36
Gravity @ 16° C: D4052 Specific	.843

*The values shown are typical values and should not be used as quality control parameters to either accept or reject product. Specifications are subject to change without notice.

Applications

Cat DEO Cold Weather is the preferred diesel engine oil¹ for low temperature applications. Cat DEO Cold Weather supports consistent emissions performance in engines equipped with aftertreatment devices² designed to meet:

- 2007/2010 On-Highway exhaust emissions standards (US)
- Tier 4 (US)
- Stage IIIB/IV (EU)
- Step 4 (Japan)

Cat DEO Cold Weather is an excellent choice for mixed fleets because it can be used in heavy-duty diesel engines built by manufacturers that recommend API CK-4, CJ-4, or CH-4 classification oil, as well as, automotive gasoline engines that recommend API SM classification oil.

- 1 Oil recommendations for 3116 and 3126 MUI Marine and MaK diesel engines can be found in the Operation and Maintenance Manual (OMM).
- 2 Aftertreatment devices can include Diesel Particulate Filters (DPF), Diesel Oxidation Catalyst (DOC), Selective Catalytic Reduction (SCR), and/or Lean NOx Trap (LNT).

Health and Safety

For information on proper use for health, safety, and environment, please refer to the Material Safety Data Sheet (MSDS). Read and understand the MSDS before using this product. Always observe good hygiene measures. For a copy of the MSDS, contact us or visit the web at www.catmsds.com.

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We offer you the right parts and service solutions, when and where you need them.

The Cat Dealer network of highly trained experts are built to help you maximize your equipment investment.

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