

# Cat<sup>®</sup> Arctic DEO<sup>™</sup> SYN

Synthetic engine oil for Caterpillar and other original equipment manufacturer earthmoving, commercial, marine, and on-highway truck diesel engines.

SAE 0W-30

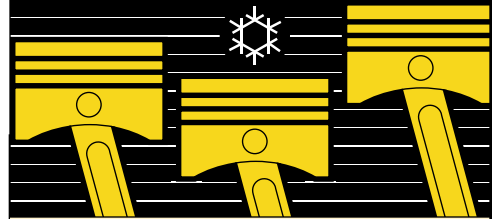
## Recommended Use

Many Caterpillar<sup>®</sup> machines operate in climates that have severely cold winters—a condition that is hard on engines and equipment. Often, cold-soaked engines are difficult to start. These same engines may also be subjected to the stress of very hot temperatures in summer.

Cat Arctic DEO SYN is beneficial at temperature extremes. The superior lubricating ability of the blend of two Group IV synthetic base stocks means diesel engines will start more easily and experience less wear at temperatures as low as -40° C. At the other extreme, its high temperature lubricity and superior oxidation resistance result in reduced wear in high temperature operation. Cat Arctic DEO SYN is recommended for applications with the following original equipment manufacturer requirements:

- API Service Classifications
  - Diesel—CH-4, CG-4, CF-4, CF
  - Gasoline—SJ
- Cummins—CES 20071, CES 20076
- Mack—EO-M

It provides extended drain capability when used with S•O•S<sup>SM</sup> Oil Analysis and Cat Filters in accordance with guidelines in the publication "Optimizing Engine Oil Change Intervals," PEDP7035.



For worldwide use.

## Applications

Cat Arctic DEO SYN is the preferred engine oil for arctic climates and operation at temperature extremes. Cat Arctic DEO has been designed to provide maximum productivity, long life and low operating costs.

## Advanced Formula for Superior Lubrication

The Cat Arctic DEO formulation is a carefully balanced blend of two Group IV polyalphaolefin synthetic base stocks and a unique additive package to provide excellent anti-wear and foam resistance resulting in extended fluid life and optimum engine life. It has outstanding thermal stability and oxidation resistance. It is formulated with high quality viscosity modifier additives which are very shear-stable to minimize viscosity loss.

This product provides the following advantages over mineral oil based lubricants:

- Improved flow and reduced friction at low temperatures
- Greater lubricating ability at high temperatures
- Increased resistance to oxidation at high temperatures
- Higher solubility capability to keep soot and contaminants in suspension

Caterpillar. The difference counts.<sup>™</sup>

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The Cat Dealer network of highly trained experts keeps your entire fleet up and running to maximize your equipment investments.

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# Cat Arctic DEO SYN

## Typical Characteristics\*

SAE Viscosity Grade	0W-30
Gravity @ 16° C (60° F)	
API (ASTM D287)	35.9
Specific	.845
API Service Classifications	CH-4, CG-4, CF-4, CF/SJ
Flash Point @ ° C (ASTM D92)	224
Pour Point @ ° C (ASTM D97)	-51
Viscosity Index (ASTM D2270)	176
CCS Viscosity, cP @ -35° C	4400
Kinematic Viscosity (ASTM D445)	
cSt @ 40° C	63.3
cSt @ 100° C	11.3
Total Base Number (TBN) (ASTM D664)	10.2
Phosphorus, % wt. (ASTM D1091)	0.12
Zinc, % wt. (ASTM D1091)	0.13
Calcium, % wt. (ASTM D874)	0.31
Sulfated Ash, % wt.	1.25

\* 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.

## Improved Cold Temperature Starting, Plus High Temperature Protection

Engine oil must be selected with a low temperature viscosity capability based on the coldest starting temperature the engine will experience. Cat Arctic DEO SYN has an SAE 0W-30 rating, and is therefore capable of engine starting temperatures as low as -40° C.

During the summer heat Cat Arctic DEO SYN provides outstanding lubricity to protect your engine at ambient temperatures up to +30° C.

### Ambient Temperature Recommendations

Recommended Ambient Temperature Range

Cat Oil Type	° C		° F	
	min.	max.	min.	max.
Cat DEO SAE 10W-30	-18	+40	0	+104
Cat DEO SAE 15W-40	-9.5	+50	+15	+122
CAT DEO SYN 5W-40	-30	+50	-22	+122
<b>Cat Arctic DEO SYN SAE 0W-30</b>	<b>-40</b>	<b>+30</b>	<b>-40</b>	<b>+86</b>

## Health and safety

Under normal conditions of intended use, this product does not pose a risk to health. Excessive exposure may result in eye, skin, or respiratory irritation. Always observe good hygiene guidelines. For more information, contact us or refer to the Material Safety Data Sheet at [www.catmsds.com](http://www.catmsds.com).

## Customer benefits

Tests prove this superior oil provides the following benefits:

- Control of high temperature piston deposits
- Soot control
- Low temperature sludge control in stop-and-go service
- Total base number quality reserve for long term deposit and wear control
- Oil consumption control

## Potential for Extended Oil Change Intervals

Cat Arctic DEO SYN is formulated by Caterpillar engineers to surpass the performance of competitive diesel engine oils in the most severe applications for off-highway and on-highway engines. Extended oil change intervals may be possible with Cat Arctic DEO SYN through monitoring with S•O•S Oil Analysis.

For more information, see us today or visit our Web site at [www.CAT.com](http://www.CAT.com)