



Mobilgard™ 540 X

ExxonMobil Marine , Canada

High Performance Marine Diesel Engine Cylinder Oil

Product Description

Mobilgard™ 540 X by ExxonMobil is a premium quality, high-performance marine diesel engine cylinder oil designed to effectively lubricate across wide-ranging fuel applications. The performance of Mobilgard 540 X has been demonstrated at the elevated peak firing pressures and liner temperatures found in modern marine two stroke engines, across Residual Fuel Oil, Distillate and Liquified Natural Gas (LNG) use.

Through the use of advanced formulation and detergency technologies in conjunction with a low Base Number (BN), Mobilgard 540 X has demonstrated the ability to optimise cylinder oil feed-rates whilst effectively managing acid neutralisation and deposit formulation in a range of engine types and fuel applications.

Mobilgard 540 X possesses low volatility to ensure excellent lubricant distribution and oil film retention whilst operating at reduced cylinder oil feed rates.

Features and Benefits

Mobilgard 540 X combines the use of high-quality, globally consistent base stocks with a superb additive formulation to provide exceptional deposit control due to increased temperatures and pressures within combustion cylinders, which are particularly prevalent in LNG fuel operation. Mobilgard 540 X also offers outstanding resistance to oxidation, acid formulation and wear protection which can lead to reduced component wear rates.

Applications

Mobilgard 540 X is formulated to provide outstanding performance in marine crosshead engines operating on a wide variety of fuel applications, including continuous LNG use.

Specifications and Approvals

This product has the following approvals:	
MAN Energy Solutions Copenhagen (Heritage MAN B&W) Category I for 2-Stroke Marine Engines	
Winterthur Gas and Diesel Engine (Heritage Wartsila & Sulzer) DF Validated for 2-Stroke Marine Engines	
Winterthur Gas and Diesel Engine (Heritage Wartsila & Sulzer) Liquid Fuel General Usage for 2-Stroke Marine Engines according to manufacturer’s latest operating guidelines	

Properties and Specifications

Property	
Grade	SAE 50
Density @ 15.6 C, kg/m3, ASTM D4052	930.1
Pour Point, °C, ASTM D97	-27
Flash Point, Cleveland Open Cup, °C, ASTM D92	268

Property	
Total Base Number, mgKOH/g, ASTM D2896	40
Viscosity Index, ASTM D2270	102
Kinematic Viscosity @ 40 C, mm2/s, ASTM D445	232
Kinematic Viscosity @ 100 C, mm2/s, ASTM D445	20

Health and safety

Health and Safety recommendations for this product can be found on the Material Safety Data Sheet (MSDS) @ <http://www.msds.exxonmobil.com/psims/psims.aspx>

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Typical Properties are typical of those obtained with normal production tolerance and do not constitute a specification. Variations that do not affect product performance are to be expected during normal manufacture and at different blending locations. The information contained herein is subject to change without notice. All products may not be available locally. For more information, contact your local ExxonMobil contact or visit [www.exxonmobil.com](http://www.exxonmobil.com)

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