Mobil[®]

Mobil Delvac MX[™] F2 15W-40 Mobil Commercial Vehicle Lube, United States

HIGH PERFORMANCE DIESEL ENGINE OIL

Product Description

Mobil Delvac MX[™] F2 15W-40 is a high performance diesel engine oil that helps extend engine life in severe on and off highway applications. The advanced chemistry of these products delivers exceptional performance in both modern, high-output engines including those with Exhaust Gas Recirculation (EGR), as well as older engines operating on either low or high sulfur fuels. As a result, Mobil Delvac MX[™] F2 15W-40 meets or exceeds the API CI-4 PLUS service category.

Mobil Delvac MX[™] F2 15W-40 is recommended by ExxonMobil for use in a wide range of heavy duty applications and operating environments found in the trucking, mining, construction, quarrying, marine and agricultural industries. These products will provide outstanding protection in the most demanding diesel engines of Caterpillar, Cummins, Detroit, Mack, Navistar, Volvo, and others. Mobil Delvac MX[™] F2 15W-40 also meets or exceeds the API SL specification for gasoline engines and mixed fleets.

The outstanding performance reserve of Mobil Delvac MX[™] F2 15W-40 is the result of extensive cooperative development work with major Original Equipment Manufacturers (OEMs) and advanced additive chemistry with patented Trimer technology. These enhancements assure excellent control of oil thickening due to soot build-up and exposure to higher temperatures and provide outstanding resistance to oxidation, corrosion, wear, and high temperature deposits.

Features and Benefits

Modern high output diesel engines including those using EGR technology generate higher levels of soot and run at higher temperatures than older, naturally aspirated engines, which significantly increases the demands on engine lubricants. These engine designs reduce oil consumption, resulting in less fresh oil makeup to replenish depleted additives. Top piston rings are located higher on the piston bringing the oil film closer to the combustion chamber where higher temperatures increase thermal stress on the lubricant. Higher fuel injector pressure and retarded timing improve exhaust emission control, but also increase engine temperatures and increase soot loads, including those engines operating with EGR. The key benefits include:

Features	Advantages and Potential Benefits
Outstanding thermal and oxidation stability	Reduced low temperature sludge build-up and high temperature deposits
Extended TBN reserves	Improved soot handling and extended drain intervals
Stay-in-grade shear stability	Reduced oil consumption and wear protection Maintains viscosity in

	severe, high temperature service
Excellent low temperature pumpability	Easier engine start-up and reduced wear
Superb resistance to corrosion	Longer life of critical wear surfaces

Applications

Recommended by ExxonMobil for use in:

- High performance diesel applications including pre-2007 turbo-charged, low emission engines designs, including those featuring EGR technology
- On highway applications operating in both high speed/high load and short haul pick-up/delivery
- Off highway applications operating in severe low speed/heavy load conditions
- Modern marine high-speed diesel engines, including Caterpillar, Cummins, Volvo, Daihatsu, and Yanmar.
- High performance gasoline engines and mixed fleet operators
- Diesel-powered equipment from American and Japanese OEMs
- On highway heavy duty trucking and off highway including: construction, mining, quarrying, and agriculture

Specifications and Approvals

Mobil Delvac MX 15W-40 meets or exceeds the requirements of the following industry and builder specifications:	15W-40
API CI-4 PLUS, CI-4, CH-4 / SL, SJ	Х
Caterpillar ECF-2	Х
Cummins CES 20078, 20077, 20076	Х

Mobil Delvac MX has the following builder approvals:	15W- 40
Mack EO-M PLUS/EO-N PREMIUM PLUS 03	Х
Volvo VDS-3	Х
MAN M3275-1	Х
Renault Trucks RLD-2	Х
Detroit Fluids Specification 93K214	Х

Mobil Delvac MX is recommended by ExxonMobil for use in applications requiring:	15W- 40
API CG-4/ CF	Х
ACEA E5	Х
Volvo VDS-2	Х
Mack EO-M	Х
Cummins CES 20072, 20071	Х
Detroit 7SE 270 (4-Stroke Cycle)	Х

Typical Properties

Mobil Delvac MX 15W-40	
SAE Grade	15W-40
Viscosity, ASTM D 445	
cSt @ 40°C	123
cSt @ 100°C	15.6
CCS, cP, ASTM D 5293	6000 @ -20°C
MRV, cP, ASTM D 4684	29,000 @ -25°C
HTHS @ 150°C, cP, ASTM D4683	4.3
Viscosity Index, ASTM D 2270	133
Sulfated Ash, wt%, ASTM D 874	1.3
Total Base #, mg KOH/g, ASTM D 2896	12
Pour Point, °C, ASTM D 97	-30
Flash Point, °C, ASTM D 92	230
Density @ 15°C kg/l, ASTM D 4052	0.879

Health and Safety

Based on available information, this product is not expected to produce adverse effects on health when used for the intended application and the recommendations provided in the Material Safety Data Sheet (MSDS) are

followed. MSDSs are available upon request through your sales contact office, or via the Internet. This product should not be used for purposes other than its intended use. If disposing of used product, take care to protect the environment.

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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

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