

# Mobil Delvac Modern™ 15W-40 Super Defense

Mobil Commercial Vehicle Lube,中国

Synthetic Technology Base Extra High Performance Diesel Engine Oil

## **Product Description**

Mobil Delvac ModernTM 15W-40 Super Defense is an extra high performance diesel engine oil that provides excellent lubrication of today's diesel engines promoting extended engine life. As a result, this product meets or exceeds the specifications of virtually all major European and American engine manufacturers. This extra high performance has been proven in the field in a wide variety of industries, applications, and mixed fleets. The advanced chemistry of this product provides outstanding performance in both modern, demanding low-emission diesel engines and older diesel engines operating on low or high sulphur fuel. Mobil Mobil Delvac Modern 15W-40 Super Defense combines a blend of synthetic technology base stocks with a progressive additive system to provide superior control of oil thickening due to soot build-up and high temperatures as well as outstanding resistance to oxidation, corrosion, and high temperature deposits.

### Features and Benefits

High output, low emission diesel engines significantly increase the demands on engine lubricants. Tighter engine designs reduce oil consumption, resulting in less fresh oil make-up to replenish depleted additives. Top piston fire 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. Increased fuel injector pressure and retarded timing improve fuel burn efficiency, but also increase engine temperatures and increase soot loads. Mobil Delvac Modern 15W-40 Super Defense is formulated from synthetic technology base oils and a superior balanced additive system to provide optimum engine performance in modern diesel and gasoline engines as well as older models. The key benefits include:

Features	Advantages and Potential Benefits
High thermal and oxidation stability	Reduced sludge build-up, deposits and viscosity increase
TBN reserves	Deposit control and acid neutralisation
Stay-in-grade shear stability	Wear protection and viscosity control
Advanced detergency/dispersancy	Cleaner engines and longer component life
Improved soot handling	Improved viscosity control and used oil pumpability
Excellent low temperature properties	Start-up wear protection
Component compatibility	Longer gasket and seal life
Meets demanding specifications of key OEMs	One engine oil for mixed fleet operations

## **Applications**

Recommended by ExxonMobil for use in:

- · Naturally aspirated and turbo-charged diesel powered equipment from leading Japanese, European, and American manufacturers
- On-highway light and heavy-duty trucking
- Off-highway industries including: construction, mining, quarrying, and agriculture
- Mixed fleet applications

### Specifications and Approvals

This product has the following approvals:	
Detroit Fluids Specification 93K215	
Mack EO-M Plus	
Mack EO-N	
MB-Approval 228.3	
MTU Oil Category 2	
RENAULT TRUCKS RLD-2	
VOLVO VDS-3	
This product is recommended for use in applications requiring:	
ACEA B2	
ACEA E3	
API CF	
API CF-4	
API CG-4	
API SH	
Cummins CES 20071	
Cummins CES 20072	
Mack EO-M	
MAN M 3275-1	
RENAULT TRUCKS RD	
RENAULT TRUCKS RD-2	
RENAULT TRUCKS RLD	
VOLVO VDS-2	
This product meets or exceeds the requirements of:	
API CH-4	
API CI-4	

This product meets or exceeds the requirements of:
API CH-4
API CI-4
API SJ
API SL

This product meets or exceeds the requirements of:
ACEA E7
Caterpillar ECF-2
Cummins CES 20076
Cummins CES 20077
Ford WSS-M2C171-D

#### **Properties and Specifications**

Property	
Grade	SAE 15W-40
Pour Point, °C, ASTM D97	-36
Flash Point, Cleveland Open Cup, °C, ASTM D92	225
Kinematic Viscosity @ 40 C, mm2/s, ASTM D445	110
Kinematic Viscosity @ 100 C, mm2/s, ASTM D445	14.6
Density @ 15 C, lb/USg, ASTM D4052	0.869
Total Base Number, mgKOH/g, ASTM D2896	9
Viscosity Index, ASTM D2270	136
Ash, Sulfated, mass%, ASTM D874	1.1

# 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

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