



Mobil Delvac 1 ESP 5W-40

Supreme Performance Heavy Duty Diesel Engine Oil

Product Description

Mobil Delvac 1 ESP 5W-40 is a fully synthetic supreme performance heavy duty diesel engine oil that helps extend engine life while providing long drain capability and potential fuel economy for modern diesel engines operating in severe applications. Mobil Delvac 1 ESP utilizes state-of-the-art technology to deliver exceptional performance in modern low emission engines, including those with Exhaust Gas Recirculation (EGR) and Aftertreatment systems with Diesel Particulate Filters (DPF's) and Diesel Oxidation Catalysts (DOC's), as well as refrigerated units and older, well-maintained engines. Mobil Delvac 1 ESP 5W-40 is recommended for use in a wide range of heavy-duty applications and operating environments found in the on-road transport and off-road mining, construction, and agricultural industries. Mobil Delvac 1 ESP also meets the requirements of the API SM specification for gasoline engines used in mixed fleets.

The outstanding performance of Mobil Delvac 1 ESP 5W-40 is the result of extensive cooperative development work with major equipment builders and application of the latest lubrication technology. As a result, this product meets or exceeds the requirements of the latest API, ACEA, and Global industry specifications for diesel engine oils, as well as the requirements of virtually all major American, and European engine manufacturers.

Features and Benefits

Many modern, low emission diesel engines generate more soot and operate at higher temperatures than older engines. This significantly increases the need for supreme performance lubricants. In addition, new engines (model-year 2007 and beyond) come equipped with aftertreatment devices installed in the engine exhaust stream which will require the use of both API CJ-4 oils and ultra-low sulfur fuels to function properly. Further, new engines using EGR will generate even higher levels of acid, soot and heat than older EGR engines due to substantially increased EGR rates compared to previous EGR designs. Top piston rings are located higher, bringing the oil film closer to the combustion chamber and exposing the lubricant to severe thermal stresses. Mobil Delvac 1 ESP 5W-40 maintains outstanding performance at significantly higher temperatures than other high performance diesel engine oils. It is also fully compatible with conventional oils. The key benefits include:

Features	Advantages and Potential Benefits
Meets or exceeds demanding specifications of major OEMs	One engine oil for mixed fleet operations
Outstanding thermal and oxidation stability	Reduced low temperature sludge build-up and high temperature deposits
Enhanced film strength at high temperatures	Reduced engine scuffing and bore polishing
Inherent stay-in-grade shear stability	Wear protection and reduced oil consumption; maintains viscosity in severe, high temperature service
Advanced formulation and viscometrics	Improved fuel economy
Low volatility	Reduced oil consumption
Exceptional low temperature pumpability	Easy engine start-up and reduced wear
Enhanced TBN quality reserve	Deposit control and extended drain capability
Outstanding resistance to corrosion	Extended life of critical wear surfaces
Long drain capability	Increased operating efficiency and lower overall cost
Component compatibility	Long gasket and seal life, extended service intervals

Applications

Mobil Delvac 1 ESP 5W-40 is recommended for use in all super high performance diesel applications, including modern low emission engine designs with Exhaust Gas Recirculation (EGR), Aftertreatment systems with Diesel Particulate Filters (DPF's) and Diesel Oxidation Catalysts (DOC's). These applications include the following:

- On-highway engines operating in both high speed/high load and stop-and-go conditions
- Off-highway engines operating in severe low speed/heavy load conditions
- Virtually all diesel powered equipment from American and European equipment builders
- High performance gasoline engines and mixed fleets
- Refrigeration units

Specifications and Approvals

Mobil Delvac 1 ESP meets or exceeds the requirements of:		5W-40
API CJ-4/CI-4 PLUS/CI-4/CH-4/SM/SL		X
ACEA E7, E9		X
Caterpillar ECF-3, ECF-2		X
Cummins CES 20081		X
Twin Disc S364A		X

Mobil Delvac 1 ESP has the following builder approvals:		5W-40
Detroit Fluids Specifications 93K218, 93K214		X
Deutz DQC III-10 LA		X
Mack EO-O Premium Plus, EO-N Premium Plus 03		X
MAN M 3277		X
MB-Approval 228.31, 235.27		X
MTU Category 2.1		X
Volvo VDS-4, VDS-3		X

Mobil Delvac 1 ESP is recommended by ExxonMobil for use in applications requiring:		5W-40
API CG-4		X

Typical Properties

Mobil Delvac 1 ESP 5W-40	
SAE Grade	5W-40
Viscosity, ASTM D 445	
cSt @ 40°C	98
cSt @ 100°C	14.7
Viscosity Index, ASTM D 2270	156
Sulfated Ash, wt%, ASTM D 874	1.0
Total Base #, mg KOH/g, ASTM D 2896	10.1
Pour Point, °C, ASTM D 97	-48
Flash Point, °C, ASTM D 92	249
Density @ 15°C kg/l, ASTM D 4052	0.85

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. MSDS's are available upon request through your sales contract 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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