

PRODUCT DATA SHEET

Royal LM 9 Diesel Engine Oil 20W40 **Railroad Diesel Engine Oil**



PRODUCT DESCRIPTION:

Royal LM 9 Diesel Engine Oil is a TBN 9-10, ashless-dispersant, “next generation” non-chlorinated engine oil. Classified as a *LMOA Generation 5* railroad diesel engine oil, it is designed specifically for large diesel engines operating in marine, railroad and power generating services. It contains a non-zinc high performance additive system that effectively protects engine components from wear in severe services, prevents the formation of sludge, varnish and carbon deposits, and extends oil drain intervals.

Royal LM 9 Diesel Engine Oil is approved by Electromotive Division of General Motors Corporation (EMD), General Electric, Bombardier, Fairbanks Morse and other medium speed engines requiring a zinc-free, high performance diesel engine oil. This product has proven to provide excellent service in heavy-duty diesel engines operating with low and high sulfur diesel fuel.

KEY FEATURES:

- Ashless Dispersant
- Non-Zinc High Performance Additive

CUSTOMER BENEFITS:

- Prevents the formation of sludge
- Reduces carbon deposits

APPLICATIONS:

- Recommended and designed for large diesel engines

PACKAGING:

Totes and Drums

SPECIFICATIONS AND APPROVALS:

LMOA Generation 5

Electromotive Division of General Motors Corporation (EMD)

General Electric (GE)

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Typical Properties

Royal LM 9 Diesel Engine Oil			
Product Number	125E	125LM9	Test Method
SAE Grade	20W40	20W40	-
API	29.39	28.85	-
Flash Point@°C	221	232	ASTM D445
Pour Point@°C	-12	-12	ASTM D97
ASTM Color	<3.5	<3.5	ASTM D1500
Viscosity@40°C, cSt	128	130.4	ASTM D445
Viscosity@100°C, cSt	15.5	15.4	ASTM D445
Viscosity Index (VI)	126	122	
Sulfated Ash, %wt	< 1.0	< 1.0	
Base Number	9.35	10.2	ASTM D2896
Cold Crank Simulation@-15°C, cP	4789	5785	

Typical Properties are typical of those obtained with normal production tolerance and do not constitute essentially 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.

Health and Safety:

When used for its intended application, this product is not expected to have any adverse health implications. For complete information on safe handling, as well as physical and chemical characteristics please refer to the Material Safety Data Sheet (MSDS) found on our website, www.royalmfg.com, or call 918-584-2671. Do not use this product for purposes other than its intended use. Please be responsible to the environment when disposing of used product.