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DATA SHEET

Z-ROD® Synthetic Motor Oil

Modern Technology for Classic Cars

AMSOIL Z-ROD Synthetic Motor Oil is specially engineered for classic and high-performance vehicles. It features a high-zinc formulation to prevent wear on flat-tappet camshafts and other critical engine components, along with a proprietary blend of rust and corrosion inhibitors for added protection during long-term storage. Z-ROD Synthetic Motor Oil is designed to perform on the street and protect during storage.



- **Engineered** for classic vehicles
- **High-zinc** formula
- **Protects** against rust during storage

Protects Flat-Tappet Cams

The lifters and cam lobes on flat-tappet camshafts common to classic and high-performance vehicles slide rapidly against one another, producing high friction and heat. The friction between the two components can eventually wear down the cam and affect valve operation, ultimately resulting in lost engine power and reduced efficiency. In addition, these areas are splash-lubricated rather than pressure-lubricated like other areas of the engine, which adds extra strain on anti-wear additives such as the zinc and phosphorus in zinc dialkyldithiophosphate (ZDDP).

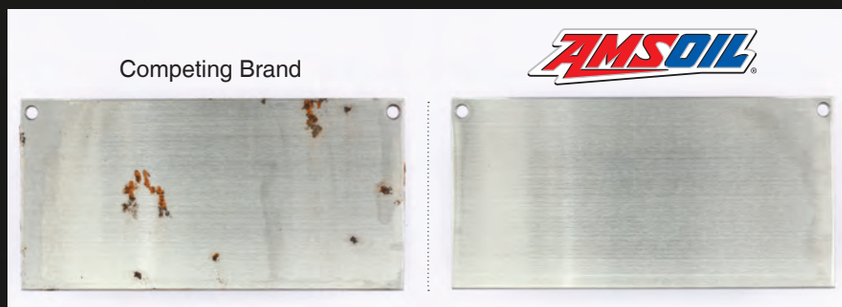
AMSOIL Z-ROD Synthetic Motor Oil is formulated with high levels of ZDDP to protect flat-tappet cams, lifters, rockers and other areas susceptible to wear. Its high-zinc, high-phosphorus formulation provides the extra wear protection these critical splash-lubricated components require.

Provides Long-Term Rust & Corrosion Protection

Z-ROD Synthetic Motor Oil is formulated with a unique blend of rust and corrosion inhibitors to ensure maximum protection during long-term storage. To prove its effectiveness, AMSOIL submitted Z-ROD Synthetic Motor Oil to the Standard Test Method for Rust Protection by Metal Preservatives in the Humidity Cabinet (ASTM D1748-10). This test evaluates the rust-preventive properties of oil under high-humidity conditions, similar to those faced by a covered hot rod in a damp garage. The metal coupon treated with AMSOIL Z-ROD Synthetic Motor Oil showed no signs of rust.

AMSOIL Delivers Superior Rust Protection

In industry-standard testing, AMSOIL Z-ROD completely prevented rust formation while a leading competitor did not.[1]



[1]Based upon in-house testing of AMSOIL Z-ROD 10W-40 and a leading competitor obtained on 7/25/2019 in ASTM D1748-10.

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TYPICAL TECHNICAL PROPERTIES
AMSOIL Z-ROD® Synthetic Motor Oil

	10W-30 (ZRT)	**10W-40** (ZRD)	**20W-50** (ZRF)
Viscosity @ 100 °C, cSt (ASTM D445)	12	14.9	19.5
Viscosity @ 40 °C, cSt (ASTM D445)	75.5	97.5	152.6
Viscosity Index (ASTM D2270)	154	159	147
Flash Point, °C (°F) (ASTM D92)	238 (460)	242 (468)	244 (471)
Fire Point, °C (°F) (ASTM D92)	260 (500)	260 (500)	260 (500)
Pour Point, °C (°F) (ASTM D97)	-42 (-44)	-39 (-38)	-36 (-33)
Noack Volatility, % weight loss (g/100g) (ASTM D5800)	5.5	3.1	3.0
High-Temperature/High-Shear Viscosity @150°C, 1.0 X 10^6 $s.^{-1}$, cP (ASTM D5481)	3.2	4.3	5.7
Four-Ball Wear @ 40 kgf, 75°C, 1200 rpm, 1 hr, scar diameter, mm (ASTM D4172)	0.33	0.33	0.34
Total Base Number (ASTM D2896)	9.0	9.0	9.0

APPLICATIONS
Use Z-ROD Synthetic Motor Oil in engines that require either 10W-30, 10W-40 or 20W-50 motor oil and an API SL or earlier specification. ZDDP levels in Z-ROD Synthetic Motor Oil exceed the limits of API SM and newer specifications.

COMPATIBILITY
AMSOIL Z-ROD Synthetic Motor Oil is compatible with conventional and other synthetic motor oils. Mixing Z-ROD Synthetic Motor Oil with other oils, however, will shorten the oil's life expectancy and reduce its performance benefits.

Z-ROD Synthetic Motor Oil is safe for automotive seals. Aftermarket oil additives are not recommended for use with Z-ROD.

SERVICE LIFE
Because engines in classic cars, hot rods and other performance vehicles are generally modified, a universal oil drain interval recommendation for these applications cannot be given. Responsibility for determining the drain interval duration rests with the owner. As a general service guideline, the maximum drain interval for Z-ROD Synthetic Motor Oil should not exceed 5,000 miles or two years, whichever comes first.

AMSOIL PRODUCT WARRANTY
AMSOIL products are backed by a Limited Liability Warranty. For complete information visit AMSOIL.com/warranty.aspx.

HEALTH AND SAFETY
This product is not expected to cause health concerns when used for the intended applications and according to the recommendations in the Safety Data Sheet (SDS). An SDS is available online at AMSOIL.com or upon request at (715) 392-7101. **Keep Out of Reach of Children**. Recycle used oil and bottle.

AMSOIL The First in Synthetics®

AMSOIL products and Dealership information are available from your local full-service AMSOIL Dealer.

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