



*The First in Synthetics*®

## Premium Protection Synthetic Motor Oils

**10W-40 (AMO) • 20W-50 (ARO)**

**Automobiles • Motorcycles • Motor Homes • Heavy Equipment**

### PRODUCT DESCRIPTION

AMSOIL Synthetic 10W-40 and 20W-50 Premium Protection Motor Oils are specially formulated to provide superior protection and performance in a wide variety of demanding applications. By incorporating high quality synthetic base stocks and additives, AMSOIL Premium Protection Oils exceed the needs of large and small gasoline or diesel engines in cars, motorcycles, trucks, motor homes, maintenance equipment, heavy equipment, street rods and marine applications. AMSOIL Premium Protection Oils resist oxidation, neutralize acids, inhibit corrosion, reduce wear and protect against deposits. They are ideal for high mileage vehicles and high-stress vehicles subject to hot temperatures, heavy hauling, trailer pulling or off road use. AMSOIL Synthetic 10W-40 and 20W-50 Premium Protection Motor Oils provide flexibility and performance beyond conventional oils for convenience and trouble free operation.

AMSOIL, the leader in automotive synthetic lubrication, produced the world's first API qualified synthetic motor oil in 1972. Trust the extensive experience of AMSOIL *The First in Synthetics*® to do the best job protecting your engine.

### Provides Superior Wear Protection

AMSOIL Synthetic 10W-40 and 20W-50 Premium Protection Motor Oils are high viscosity oils engineered to protect against metal-to-metal contact. They resist viscosity shear and are formulated with a heavy treatment of anti-wear additives for excellent protection of gears, bearings, cam lobes and other high-pressure components



in engines and transmissions. AMSOIL Premium Protection Synthetic Motor Oils help extend engine life.

### Exceeds the Requirements of Wet Clutch Transmissions

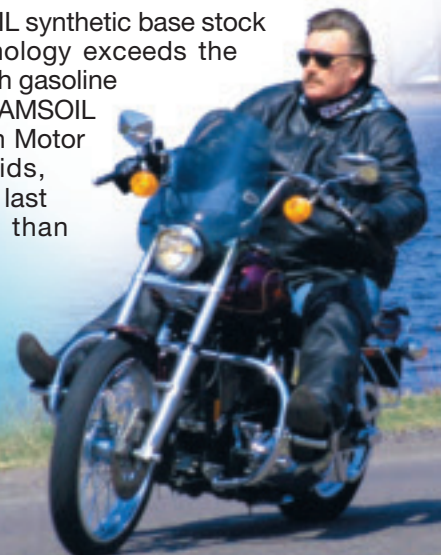
AMSOIL Premium Protection Synthetic Motor Oils contain no friction modifiers, making them ideal for motorcycles, maintenance equipment and other wet clutch transmission applications. Formulated to prevent clutch glazing and slippage, they insure smooth clutch engagement and long term, dependable transmission operation. AMSOIL Synthetic 10W-40 and 20W-50 Motor Oils reduce clutch wear for extended transmission life.

### Resists Oxidation and High Temperature Breakdown

AMSOIL Premium Protection Synthetic Motor Oils overcome the thermal deficiencies common to conventional petroleum oils. Volatilization (burn-off), oxidation and excessive deposit formation from high heat are greatly reduced. Viscosity thickening is controlled and engines run clean, promoting cooler operation and long engine life in air or liquid cooled engines.

### Extends Drain Intervals in Gasoline and Diesel Engines

The superior AMSOIL synthetic base stock and additive technology exceeds the requirements of both gasoline and diesel engines. AMSOIL Premium Protection Motor Oils neutralize acids, disperse soot and last longer in service than conventional oils.



## TYPICAL TECHNICAL PROPERTIES

### AMSOIL Synthetic 10W-40 and 20W-50 Premium Protection Motor Oils

	<b>AMO (10W-40)</b>	<b>ARO (20W-50)</b>
Kinematic Viscosity @ 100°C, cSt (ASTM D-445)	14.4	18.4
Kinematic Viscosity @ 40°C, cSt (ASTM D-445)	84.5	115.7
Viscosity Index (ASTM D-2270)	178	178
CCS Viscosity, cP (°C) (ASTM D-5293)	5429 (-25)	3605 (-15)
Pour Point °C (°F) (ASTM D-97)	-43 (-45)	-36 (-33)
Flash Point °C (°F) (ASTM D-92)	230 (446)	232 (450)
Fire Point °C (°F) (ASTM D-92)	250 (482)	254 (489)
High Temperature/High Shear Viscosity (ASTM D-4683 @ 150°C, 1.0 X 10 <sup>6</sup> s-1), cP	4.3	5.0
Four-Ball Wear Test (ASTM D-4172 @ 40 kgf, 150°C, 1800 rpm, 1 hr), Scar, mm	0.40	0.40
Noack Volatility, % weight loss (g/100g) (ASTM D-5800)	6.7	6.5
Total Base Number	12.1	12.2

## APPLICATIONS

AMSOIL Synthetic 10W-40 and 20W-50 Premium Protection Motor Oils are multi-use, premium synthetic lubricants for applications that require or benefit from a higher viscosity oil. They are recommended for air and liquid cooled, large or small gasoline and diesel engines, transmissions and chaincase applications where 10W-40 or 20W-50 oils are required with any of the following specifications:

- API SL/CF, CI-4 Plus
- API SJ, SH, SG...
- MIL-PRF-2104G
- JASO MA (Motorcycle)

## Mixing AMSOIL

AMSOIL Synthetic 10W-40 and 20W-50 Premium Protection Motor Oils are compatible with conventional and synthetic motor oils. Mixing AMSOIL motor oils with other oils, however, will shorten the oil life expectancy and reduce the performance benefits. AMSOIL does not support extended drain intervals where oils have been mixed.

Aftermarket oil additives are not recommended for use with AMSOIL Synthetic Oils.

## Service Life

AMSOIL Synthetic 10W-40 and 20W-50 Premium Protection Motor Oils are recommended for use up to 15,000 miles or one year, whichever comes first, in

unmodified<sup>(1)</sup>, mechanically sound<sup>(2)</sup> automotive gasoline or diesel engines. In motorcycles, small engines, stationary engines, heavy equipment and other applications, extend drain intervals based on oil analysis or follow the manufacturer recommended drain interval.

AMSOIL Ea™ full-flow oil filters are designed for extended drain intervals. They stop smaller particles, flow more oil and last longer than regular filters. For best performance, use AMSOIL Ea™ full-flow oil filters and replace at the time of oil change. Other oil filters should be changed at standard OEM\* intervals.

\*OEM - Original Equipment Manufacturer

<sup>(1)</sup> Engines operating under modified conditions are excluded from extended drain recommendations. Examples include the use of performance computer chips; non-OEM approved exhaust, fuel or air induction systems; and the use of fuels other than those recommended for normal operation by the manufacturer.

<sup>(2)</sup> Mechanically sound engines are in good working condition and do not, for example, leak oil or consume excessive amounts, are not worn out, do not overheat, do not leak anti-freeze and have properly working emission control systems. AMSOIL recommends repairing malfunctioning engines prior to the installation of AMSOIL synthetic oils.

## Health & Safety

This product is not expected to cause health concerns when used for the intended application and according to the recommendations in the Material Safety Data Sheet (MSDS). An MSDS is available upon request at 715-392-7101 or via the Internet at [www.AMSOIL.com](http://www.AMSOIL.com).

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

