



*The First in Synthetics*®

## European Car Formula Synthetic 5W-40 Motor Oil

VW 505.01 • MB 229.51 • BMW LL-04 • API SM/CF

Superior Protection and Performance for Gasoline  
and Diesel European Vehicles



### **PRODUCT DESCRIPTION**

AMSOIL European Car Formula Synthetic 5W-40 Motor Oil (AFL) is specially formulated for the lubrication needs of modern European gasoline and diesel cars and light trucks. Formulated with advanced AMSOIL synthetic base stocks, premium additives and a 5W-40 viscosity rating, AMSOIL AFL is the preferred oil for virtually all European automobiles, especially turbo-charged models. It is one of the only oils in North America to be recommended for the latest specifications of all three major European automakers - Volkswagen (Audi), BMW and Mercedes-Benz - and the latest North American API specification. AMSOIL European Car Formula is highly versatile for multiple applications.

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.

### **Maximum Engine Protection**

AMSOIL Synthetic European Car Formula contains high-quality anti-wear additives and surpasses the tough ACEA oil specifications for high-temperature/high-shear viscosity. It provides outstanding protection in high-RPM, hot-running engines and delivers dependable long-term performance for the extended drain intervals set by European automakers.

### **Superior Engine Cleanliness**

The excellent oxidation stability, heat resistance and detergency properties of AMSOIL

Synthetic European Car Formula keep engines clean. It is specially designed to prevent sludge and varnish deposits for reduced oil consumption, extended engine life and maximum overall performance.

### **Minimizes Exhaust Emissions**

AMSOIL European Car Formula is designed for newer vehicle emission control systems. It meets current industry and vehicle manufacturer requirements for long-life protection of gasoline vehicle catalytic converters and diesel particulate filters (DPF).

### **All-Season Performance**

The broad 5W-40 viscosity rating, low volatility (burn-off) and wax-free nature of AMSOIL Synthetic European Car Formula make it excellent for hot and cold temperatures. Engine wear is reduced, oil thickening is controlled and vehicles start easier in cold temperatures.



## TYPICAL TECHNICAL PROPERTIES

### Synthetic 5W-40 European Engine Oil (AFL)

Kinematic Viscosity @ 100°C, cSt (ASTM D-445)	13.7
Kinematic Viscosity @ 40°C, cSt (ASTM D-445)	79.7
Viscosity Index (ASTM D-2270)	177
Viscosity CCS, cP @ °C (ASTM D-5293)	5121 (-30)
Flash Point °C (°F) (ASTM D-92)	230 (446)
Fire Point °C (°F) (ASTM D-92)	246 (474)
Pour Point °C (°F) (ASTM D-97)	-42 (-44)
NOACK Volatility, % weight loss (g/100g) (ASTM D-5800)	8.7
Four-Ball Wear Test (ASTM D-4172B @ 40 kg, 75°C, 1200 rpm, 1 hr), Scar, mm	0.44
Total Base Number	8.0
HTHS (cP) (ASTM D-5481)	3.7

### APPLICATIONS

AMSOIL Synthetic European Car Formula is formulated to surpass the most demanding European specifications. It is recommended for European and North American gasoline or diesel vehicles requiring any of the following worldwide specifications:

- API SM/CF
- ACEA C3
- ACEA A3/B3
- ACEA A3/B4
- BMW LL-04
- Mercedes Benz 229.31, 229.51
- Porsche
- Saab
- Volvo
- Volkswagen 502.00, 505.00, 505.01
- DaimlerChrysler MS-10725

### SERVICE LIFE

Recommended for the extended drain intervals established by the vehicle manufacturer or extend based on oil analysis. Change oil filter at time of oil change.

### MIXING AMSOIL

AMSOIL AFL is 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 motor 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 via the Internet at [www.amsoil.com](http://www.amsoil.com) or upon request at (715) 392-7101. **Keep Out of Reach of Children.** Don't pollute. Return used oil to collection centers.

For AMSOIL warranty information visit [www.amsoil.com](http://www.amsoil.com)

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

