PROTECTION *you demand.* | PERFORMANCE *you deserve.™*

DATA SHEET

AMSOIL Signature Series 100% Synthetic Motor Oil

Custom-Built to Outperform

AMSOIL Signature Series 100% Synthetic Motor Oil is formulated for drivers who demand the absolute best engine protection. Built with advanced synthetic base oils and a precision-engineered additive system, it is designed to control wear, resist volatility and maintain viscosity under extreme heat, pressure and cold-start conditions. The result is uncompromising film strength, cleaner components and protection that pushes beyond industry standards into a class of its own.

Modern engines place unprecedented stress on motor oil through turbocharging, direct injection, higher temperatures and extended service intervals. Signature Series is engineered to meet those challenges head on, delivering more protection, performance and confidence mile after mile, even during extreme use.

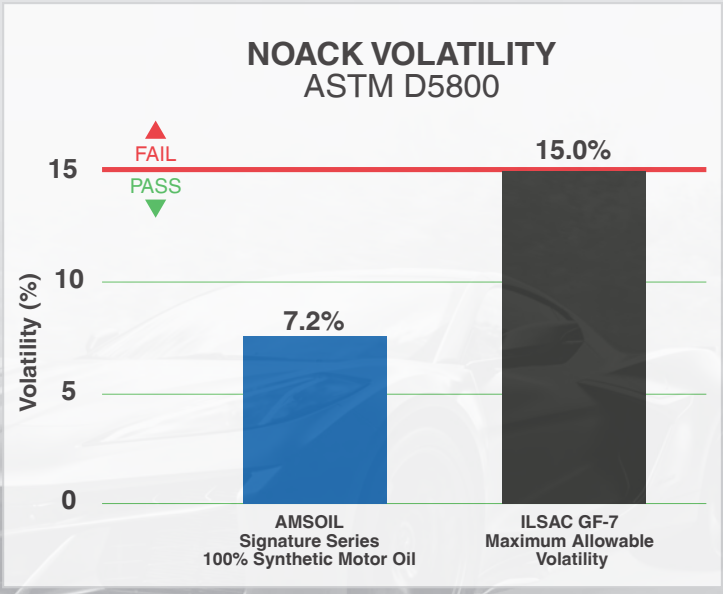


Industry-Leading Formulation:

- **Protects** – Ultimate long-life anti-wear protection.
- **Cleans** – Fights sludge and carbon buildup.[1]
- **Adapts** – Responds to changing conditions.
- **Performs** – Proven beyond the standard.[2]

2X BETTER Protection Against Volatility

LESS EVAPORATION. FEWER TOP OFFS. MORE PROTECTION.
Volatility can compromise engine protection by causing motor oil to evaporate under high heat, leading to increased oil consumption, deposits and reduced performance. AMSOIL Signature Series 100% Synthetic Motor Oil is engineered with premium base oils and a robust additive system to resist evaporation and maintain its protective properties, even in extreme conditions. The result is longer-lasting performance you can rely on. AMSOIL Signature Series delivers **2X better protection against volatility**,[3] helping reduce oil consumption, minimize top-offs and keep engines cleaner over time.



[1]Based on Sequence VH and IIIH tests.
[2]Based on double-length Sequence IIIH test.
[3]Based on AMSOIL Signature Series 0W-20 100% Synthetic Motor Oil compared to the API SQ limit using the ASTM D5800 NOACK volatility test.

Protects Against Threats to Modern Engines

GUARANTEED PROTECTION UP TO 25,000 MILES OR 1 YEAR*
AMSOIL Signature Series 100% Synthetic Motor Oil is engineered to deliver exceptional protection and performance and long-term reliability, as demonstrated through extensive mileage accumulation studies.

Testing in a high-performance Ford F-150 Raptor platform showed consistently low wear metal levels, confirming that critical engine components remain well protected even under demanding conditions. The oil maintained excellent viscosity control throughout the test, maintaining a strong lubricant film and resisting shear to stay in grade for reliable performance.

Advanced oxidation and nitration resistance further demonstrate the oil's ability to withstand heat and combustion stress, while its advanced additive system remained intact throughout extended use. This additive retention ensures reliable engine protection and highlights the formulation's durability through extended drain intervals.

Notably, no measurable oil consumption was observed during testing, underscoring Signature Series' superior thermal stability and resistance to volatilization.

Whichever comes first in personal vehicles in normal service. See page 4 for details.

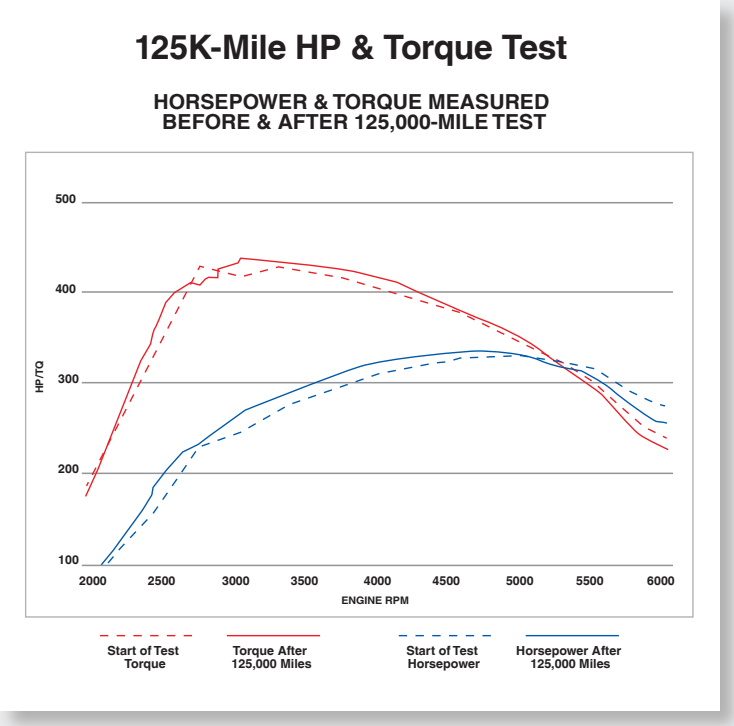
Guards Against LSPI

Low-speed pre-ignition (LSPI) remains a serious concern in today's turbocharged, direct-injection engines, where uncontrolled combustion events can damage pistons and other critical components, especially as motor oil ages. AMSOIL Signature Series 100% Synthetic Motor Oil is engineered to help prevent LSPI by maintaining a strong, stable formulation that continues to deliver outstanding performance throughout the drain interval. Even after 25,000 miles of use, Signature Series delivers **4X more piston protection against LSPI**[4] than the industry standard requires.

Preserves Horsepower and Torque

AMSOIL Signature Series 100% Synthetic Motor Oil is **built to help engines run stronger, longer**. We installed Signature Series 5W-30 100% Synthetic Motor Oil in a 2025 Ford* F-150* Raptor* to test its ability to protect against torque and horsepower loss using 25,000-mile drain intervals. Power sweeps were done at the beginning and end of the test to evaluate horsepower and torque retention. As the graph shows, **Signature Series maintained performance throughout the 125,000-mile test**, even under elevated stresses of a 3.5L high-output engine.[5]





[4]*Based on AMSOIL Signature Series 5W-30 100% Synthetic Motor Oil in a modified Sequence IX aged-oil LSPI test after 25-000-mile service interval.*

[5]*Based on comparative start- and end-of-test horsepower and torque measurements.*

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Proven Cleaning Power

UNYIELDING PROTECTION AGAINST DEPOSITS

Engine deposits can form when oil breaks down under high heat, leaving harmful buildup on pistons that reduces efficiency and performance. AMSOIL Signature Series 100% Synthetic Motor Oil is formulated to resist thermal breakdown and actively fight deposit formation, helping keep critical engine components clean and operating at peak performance. In Sequence IIIH testing, AMSOIL Signature Series provides **72% more protection against piston-deposit formation** than industry standards,[6] helping ensure cleaner pistons and consistent performance over time.



Even after doubling the length of the industry-standard test, Signature Series delivered 31% better protection than required,[7] demonstrating its ability to maintain cleanliness far beyond industry standards.



NO SLUDGE, JUST PROTECTION[8]

Signature Series helps prevent sludge formation, keeping critical oil passages clear for consistent lubrication and long term engine health.

Sludge forms when oil degrades under heat and contamination, creating thick deposits that can restrict oil flow and compromise engine performance.

AMSOIL Signature Series 100% Synthetic Motor Oil is engineered to resist breakdown and maintain exceptional cleanliness, helping prevent sludge from forming — even in extreme conditions. In a 125,000-mile accumulation study with a 2025 Ford F-150 Raptor equipped with a 3.5L high-output engine, AMSOIL Signature Series demonstrated outstanding performance over extended use, keeping engines clean and protected.



[6]Based on AMSOIL Signature Series 5W-30 100% Synthetic Motor Oil results in the Sequence IIIH test.

[7]Based on AMSOIL Signature Series 5W-30 100% Synthetic Motor Oil results in a double-length Sequence IIIH test.

[8]As demonstrated in a 125,000-mile accumulation study using AMSOIL Signature Series 5W-30 100% Synthetic Motor Oil in a 2025 Ford* F-150 Raptor* equipped with a 3.5L high-output engine which had 0% oil-screen plugging.

PERFORMANCE THAT ADAPTS

Signature Series is engineered to perform under constantly changing internal engine conditions — heat, load and stress. Its proprietary formulation supports consistent protection, cleanliness and performance throughout extended service intervals.



TYPICAL TECHNICAL PROPERTIES
Signature Series 100% Synthetic Motor Oil

	0W-16 (AZS)	0W-20 (ASM)	5W-20 (ALM)	0W-30 (AZO)	5W-30 (ASL)	10W-30 (ATM)	0W-40 (AZF)	5W-50 (AMR)
Kinematic Viscosity @ 100°C, cSt (ASTM D445)	7.8	8.7	9.1	10.2	10.5	10.7	14.9	19.4
Kinematic Viscosity @ 40°C, cSt (ASTM D445)	41.5	46.9	52.2	55.7	60.6	67.6	84.7	120
Viscosity Index (ASTM D2270)	161	167	157	172	165	146	184	182
CCS Viscosity, cP @ (°C) (ASTM D5293)	3897 (-35)	4118 (-35)	3874 (-30)	4450 (-35)	3791 (-30)	3917 (-25)	4878 (-35)	4354 (-30)
Flash Point °C (°F) (ASTM D92)	220 (428)	236 (456)	232 (450)	224 (435)	242 (467)	234 (453)	226 (438)	230 (446)
Fire Point °C (°F) (ASTM D92)	240 (464)	252 (485)	252 (485)	240 (464)	262 (503)	262 (503)	240 (464)	248 (478)
Pour Point °C (°F) (ASTM D97)	-53 (-63)	-54 (-65)	-51 (-59)	-50 (-58)	-48 (-54)	-48 (-54)	-50 (-58)	-48 (-54)
NOACK Volatility, % weight loss (g/100g) (ASTM D5800)	8.4	7.2	5.6	8.7	5.3	3.9	7.6	6.3
High-Temperature/High-Shear Viscosity @ 150°C, 1.0 X 10^6 $s.^{-1}$, cP (ASTM D5481)	2.4	2.7	2.7	3.1	3.0	3.1	3.8	4.5
Total Base Number (ASTM D2896)	10.4	10.4	10.4	10.4	10.4	10.4	10.4	10.4

The typical properties listed above reflect the general characteristics of the product and are not manufacturing specifications. Variations that do not affect product performance should be expected. Product formulations are subject to change without notice.

APPLICATIONS
Use AMSOIL Signature Series Synthetic Motor Oil in applications that require any of the following specifications:

0W-16 (AZS): API SQ (Resource Conserving), SP, SN Plus...; ILSAC GF-7B, GF-6B

0W-20 (ASM): API SQ (Resource Conserving), SP, SN Plus...; GM dexos1* Gen 3 (supersedes dexos1 Gen 2 and 6094M); Chrysler MS-6395; Ford WSS-M2C947-A/B1, WSS-M2C962-A1, WSS-M2C972-A1; ILSAC GF-7A, GF-6A, GF-5...

5W-20 (ALM): API SQ (Resource Conserving), SP, SN Plus...; GM dexos1 Gen 3 (supersedes dexos1 Gen 2 and 6094M); Chrysler MS-6395; Ford WSS-M2C945-A/B1, WSS-M2C960-A1, WSS-M2C970-A1; ILSAC GF-7A, GF-6A, GF-5...

0W-30 (AZO): API SQ (Resource Conserving), SP, SN Plus...; GM dexos1 Gen 3 (supersedes dexos1 Gen 2, LL-A-025, 6094M and 4718M); Chrysler MS-6395, MS-13340; Ford WSS-M2C963-A1; ILSAC GF-7A, GF-6A, GF-5…

5W-30 (ASL): API SQ (Resource Conserving), SP, SN Plus...; GM dexos1 Gen 3 (supersedes dexos1 Gen 2, LL-A-025, 6094M and 4718M); Ford WSS-M2C946-A/B1, WSS-M2C961-A1, WSS-M2C971-A1; Chrysler MS-6395, MS-13340; Honda HTO-06; ILSAC GF-7A, GF-6A, GF-5...

10W-30 (ATM): API SQ (Resource Conserving), SP, SN Plus...; Chrysler MS-6395; Ford WSS-M2C205-A; GM LL-A-025, 6094M, 4718M; ILSAC GF-7A, GF-6A, GF-5…

0W-40 (AZF): API SQ, SP, SN Plus...; Chrysler MS-A0921, MS-12633, MS-10725, MS-10850; GM dexos R; Nissan GT-R*; Ford WSS-M2C937-A

5W-50 (AMR): API SQ, SP, SN Plus...; Ford WSS-M2C931-C, WSS-M2C931-E1; GM dexos R

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

TECHNICAL SERVICES
For immediate answers to your technical questions call 715-399-8324 (TECH) between 8 a.m. and 5 p.m. Central time or email tech@amsoil.com.

SERVICE LIFE
Normal Service – Up to 25,000 miles (40,200 km), 700 hours of operation or one year, whichever comes first, in personal vehicles not operating under severe service.
Severe Service – Up to 15,000 miles (24,140 km), 700 hours of operation or one year, whichever comes first. Severe service conditions include commercial or fleet vehicles; excessive idling; or frequent towing, hauling, plowing or driving in dusty conditions.

- Modified engines (non-stock), racing vehicles and vehicles using alternative fuels (E85, CNG, propane, etc.) are excluded from extended drain interval recommendations.
- Change at the vehicle manufacturer's recommended drain interval outside U.S. and Canada.
- AMSOIL Oil Filters are designed for extended drain intervals. Do not exceed 12,000 miles (19,312 km) or one year with other brand filters unless longer intervals are recommended by the vehicle manufacturer. Always change filter when changing oil.
- Check oil regularly to maintain proper fill levels.

AMSOIL Oil Filters stop smaller particles, flow more oil and last longer than regular filters. For best performance, use AMSOIL Oil Filters.

AMSOIL PRODUCT WARRANTY
Using AMSOIL synthetic lubricants does not void your new vehicle or equipment manufacturer's warranty. All AMSOIL lubricants and filters are covered by the AMSOIL Limited Warranty. For complete information visit AMSOIL.com/warranty.aspx.

HEALTH & SAFETY
This product is not expected to cause health concerns when used for the intended application and according to the recommendations in the Safety Data Sheet (SDS). An SDS is available at AMSOIL.com or upon request at 715-392-7101. **Keep Out of Reach of Children.** Don't pollute. Return used oil to collection centers.

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

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