

DATA BULLETIN

DOMINATOR® Synthetic Racing Oil

AMSOIL DOMINATOR® Synthetic Racing Oil provides superior performance and maximum protection in high-performance and racing applications. DOMINATOR is engineered from advanced synthetic technology to better withstand the elevated rpm, high temperatures and shock-loading common to racing applications. Its robust formulation, tested and validated by championship race teams, is designed to provide maximum horsepower without sacrificing engine protection. DOMINATOR provides straight-grade protection in a multi-grade formulation.

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.

Anti-Wear Formulation

Racing and high-performance engines are typically modified to deliver maximum horsepower and speed. Their powerful designs create shearing forces that can cause lesser oils to lose viscosity, leaving bearings, pistons and other components vulnerable to wear and failure. DOMINATOR Synthetic Racing Oil's durable formulation resists viscosity loss due to mechanical shear to maintain a strong protective oil film. It is heavily fortified with zinc and phosphorus anti-wear additives to provide additional protection against scuffing and wear in severe racing conditions (see results below).

Maximum Horsepower

The excessive friction and heat of racing robs engines of power and longevity. DOMINATOR is formulated with a proprietary friction modifier for maximum horsepower and cooler engine temperatures, promoting improved lap times and longer-lasting components.



- Formulated specifically for racing & high-performance engines
- Robust formulation resists viscosity loss
- Proprietary friction modifier maximizes horsepower & torque
- Fortified with anti-wear additives for extra protection

Racing is Research™

The AMSOIL Offshore Racing Team has claimed many national and world championship titles in several different categories of racing, and AMSOIL DOMINATOR Synthetic Racing Oil has been key to its success. After a full racing season covering 3,000 miles of extreme driving, a teardown of one of the team's Mercury* 525 EFI V-8 engines revealed clean, virtually wear-free components.



The piston crown contains normal carbon, while the rings remain clean and functional. Note the absence of wear or scuffing on the piston skirt.



The camshaft shows little-to-no scoring, bluing or wear after 3,000 miles of high-performance racing.

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TYPICAL TECHNICAL PROPERTIES

DOMINATOR® Synthetic Racing Oil 5W-20 (RD20)	10W-30 (RD30)	15W-50 (RD50)	SAE 60 (RD60)
Kinematic Viscosity @ 100°C, cSt (ASTM D445) 9.0	11.5	18.0	25.0
Kinematic Viscosity @ 40°C, cSt (ASTM D445) 50.8	73.5	126.3	186.8
Viscosity Index (ASTM D2270)	149	158	166
CCS Viscosity cP (°C) (ASTM D5293)	5139 (-25)	6587 (-20)	5610 (-15)
Pour Point °C (°F) (ASTM D97)	-46 (-51)	-38 (-36)	-36 (-33)
Flash Point °C (°F) (ASTM D92)	236 (457)	238 (460)	234 (453)
Fire Point $^{\circ}$ C ($^{\circ}$ F) (ASTM D92)	254 (489)	250 (482)	258 (496)
(ASTM D4172 @ 40 kg, 150°C, 1800 rpm, 1 hr), Scar, mm0.39	0.39	0.38	0.38
Total Base Number	8.0	8.0	8.0
150°C, 1.4 x 10°s ⁻¹ , cP (ASTM D5481)	3.6	5.7	7.2

Protection from Startup to the Checkered Flag

DOMINATOR provides maximum protection in temperature extremes. Its low pour point offers excellent cold-start protection and provides less drag when the oil has not reached stable operating temperatures. At elevated operating temperatures, it maintains superior film strength. DOMINATOR's thermally stable synthetic chemistry resists the effects of intense heat common to racing engines to provide reliable protection for the duration of the race.

Commercial Availability

Many oil companies produce specialty racing oils for elite groups and do not offer them to the general public. For example, several popular oil manufacturers produce racing oils offered only to NASCAR racers. All AMSOIL synthetic motor oils are already formulated to a higher level of performance than competitors' oils, and AMSOIL DOMINATOR Synthetic Racing Oil is no exception. It provides maximum performance and superior protection to all racers, regardless of their level of competition. The same AMSOIL DOMINATOR Synthetic Racing Oil that is used in the engines of AMSOIL corporately sponsored racers, including Scott Douglas and Bob Teague, are available to everyone.

APPLICATIONS

Use in racing and high-performance engines. Check the owner's manual or engine builder's recommendations for the

AMSOIL Ea® Racing Air Filters (EAAR) are specially designed for racing and street rod enthusiasts who desire AMSOIL Ea protection in carbureted applications. AMSOIL Ea Racing Air Filters are constructed with synthetic media, providing maximum protection and extended filter life.

AMSOIL offers WIX Racing Oil Filters for racing applications. WIX racing filters are specially designed for racing applications only.

Oil Analyzers Inc®. (715-395-0222) is a division of AMSOIL that provides cost-effective, quality oil analysis services.

For more information on product applications and service life, refer to the AMSOIL Product Recommendation and Drain Interval Guide (G1490).



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