



# TECHNICAL DATA

102 Barton Street, St. Louis, Missouri 63104

In-State (314) 865-4100/Out of State 800-325-9962/Fax (314) 865-4107 <http://www.schaefferoil.com>

## 9005 SUPREME 9000™ FULL SYNTHETIC SAE 0W-20 API SN, RESOURCE CONSERVING, ILSAC GF-5 GM dexos-1™ Compliant

Supreme 9000™ Full Synthetic SAE 0W-20 is a premium quality full synthetic, multi-grade engine oil that is specifically formulated to provide robust protection to critical engine parts from damaging friction and wear, enhanced protection against the formation of sludge and deposits, increased engine efficiency and fuel economy benefits along with extend engine life in all gasoline fueled automobile and light duty truck engines including those that are turbocharged and supercharged.

Supreme 9000™ Full Synthetic SAE 0W-20 is blended from a unique combination of select synthetic base fluids to provide the following advantages:

1. Superior cold cranking and oil pumpability at low temperatures
2. Exceptional oxidative stability especially at high engine operating temperatures
3. Exceptional resistance to thermal degradation to prevent the formation of high temperature engine deposits
4. Exceptional low volatility characteristics, that provides enhances oil consumption control and prevention of the formation of deposits on critical engine parts.
5. A high viscosity index.
6. Enhanced film strength at high operating temperatures
7. Low coefficients of traction, which result in improved fuel economy benefits.
8. Extended oil drain capability and intervals

Blended into the synthetic base stocks is a highly advanced proprietary performance additive package and a highly shear stable viscosity index improver which provides the following performance benefits:

1. **Zinc anti-wear additive system with minimal volatility and chemical breakdown which provides maximum, long lasting anti-wear performance and robustness needed to protect the engine**
2. **Outstanding protection against the formation of high temperature deposits**
3. **Enhanced protection from harmful sludge to keep the Supreme 9000™ Full Synthetic SAE 0W-20 flowing to critical engine components and prevent catastrophic engine wear**
4. **High detergency and dispersancy to suppress the formation of deposits, sludge and varnish buildup to help maintain engine performance, fuel economy and emissions**
5. **Active cleaning agents for increased and enhanced engine cleanliness**
6. **Exceptional protection against the formation of coking deposits on turbochargers**
7. **Exceptional protection against thermal breakdown during high engine oil operating temperature conditions**
8. **Improved protection against oxidative thickening**
9. **Rapid circulation and excellent pumpability**
10. **Excellent low temperature flow characteristics and pumpability to provide rapid circulation and minimize wear during start-up**
11. **Excellent resistance to thinning at high temperatures**
12. **Excellent shear stability to resist viscosity shear down and breakdown**

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13. **Excellent high temperature/high shear performance to provide excellent oil film thickness and engine protection at high operating temperatures and shear rates, while minimizing lubricant frictional resistance**
14. **Enhanced lubrication to maintain maximum horsepower and acceleration**
15. **Inhibitors that significantly reduce the problems that can result from the use of ethanol blended fuels**
16. **Prevention of the formation of rust, white sludge and lubricant starvation that can occur with 20% or higher ethanol fuels**
17. **Outstanding rust and corrosion protection**
18. **Substantially reduced oil consumption**
19. **Extra protection for hot running engines**
20. **Extra protection for cold running engines in stop-and-go service.**
21. **Reduced oil ageing allowing for increased drain intervals**
22. **A substantial reduction in ring and cylinder wear**
23. **Reduced bearing wear and increased bearing life**
24. **Excellent rust and bearing corrosion protection**
25. **Enhanced vehicle emissions control system compatibility and system life**
26. **Increased fuel economy benefits and retention for improved gas mileage during the oil's entire oil drain interval**
27. **Superior valve train-wear protection for increased engine life**
28. **Excellent anti-foaming properties**

Further blended into these synthetic base fluids, the highly advanced proprietary performance additive package and shear stability viscosity index improver are two proven frictional modifiers, Micron Moly<sup>®</sup>, a liquid soluble type of Moly and Schaeffer Mfg.'s own proprietary additive Penetro<sup>®</sup>. These two proven frictional modifiers once plated form a long lasting slippery tenacious lubricant film, which prevents the metal surfaces from coming into contact with each other. By preventing metal-to-metal contact, damaging frictional wear is prevented from occurring. This prevention of metal-to-metal contact and reduction in wear results in:

- ❖ **Increased fuel economy**
- ❖ **A low coefficient of friction**
- ❖ **Significantly less bearing, ring, piston, cylinder and valve-train wear**
- ❖ **Increased engine efficiency**
- ❖ **Increased engine durability**
- ❖ **Increased engine life**
- ❖ **Less down-time**
- ❖ **Reduced maintenance costs**

Supreme 9000™ Full Synthetic SAE 0W-20 meets and exceeds the following specifications and manufacturers' requirements: MIL-PRF-46152E; CID A-A-52039B; API Service Classification SN, Resource Conserving; ILSAC GF-5; Ford WSS-M2C945-A (suitable for use); Ford WSS-M2C946-A (suitable for use); Ford WSS-M2C-947-A (suitable for use) General Motors dexos-1™ compliant; General Motors 6094M; Chrysler MS-6395Q; Toyota and Honda Service Fill Specifications; Honda/Acura HTO-06.

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**TYPICAL PROPERTIES**

SAE Grade	0W-20
Specific Gravity (ASTM D-1298)	0.848
Viscosity @ 40°C, cSt (ASTM D-445)	42.37
Viscosity @ 100°C, cSt (ASTM D-445)	8.37
Viscosity Index (ASTM D-2270)	178
High Temperature/High Shear Viscosity 212°F/100°C, cP (ASTM D-4683)	5.70
High Temperature/High Shear Viscosity 302°F/150°C, cP (ASTM D-4683)	2.63
Cold Cranking Viscosity (ASTM D-5293) @-35°C, cP	5,060
Mini Rotary Viscosity TP-1 @ -40°, cP (ASTM D-4683)	20,194
Flash Point °F/°C (ASTM D-92)	400°/204°
Pour Point °F/°C (ASTM D-97)	-60°/-51°
Total Base Number (ASTM D-2896)	7.84
Sulfated Ash Content % wt. (ASTM D-874)	0.82%
Shear Stability 30 Passes(ASTM D-6278) Viscosity, cSt @100°C	7.37
Copper Strip Corrosion Test (ASTM D-130)	1a
NOACK Volatility %Evaporation Loss (ASTM D-5800)	12.58%
Foam Test (ASTM D-892)	
Sequence I	0/0
Sequence II	0/0
Sequence III	0/0
Sequence IV	0/0
High Temperature Foam Test (ASTM D6082 Option A)	0/0
MHT-4 TEOST (ASTM 7097)	
Deposit Weight, mg	29.4
Engine Rusting Ball and Rust Test (ASTM D-6557)	
Average Gray Value	128
Sequence IIIG	
% Viscosity increase @ 40°C	130%
Average Cam & Lifter Wear, µm	9.8
% Phosphorous (ASTM D-4951)	0.076