SINCE 1839 Schaeffer MANUFACTURING COMPANY

ISO 9001 CERTIFIED

TECHNICAL DATA

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8008 ADVANCED EUROPEAN PERFORMANCE MID SAPS SAE 5W-30 ACEA C3-2012 API SN/CF

Advanced European Performance Mid SAPs SAE 5W-30 is a premium Top Tier, multi-grade full synthetic engine oil specifically formulated to provide robust protection from damaging friction and wear, enhanced protection against the formation of sludge and deposits, increased engine efficiency and extend engine life. Advanced European Performance Mid SAPs SAE 5W-30 will meet the needs of highly tuned and advanced four cylinder European gasoline engines (with or without catalytic convertors), diesel passenger cars fitted with diesel particulate filters and light commercial vehicles that are naturally aspirated or turbocharged. Advanced European Performance Mid SAPs is suitable for use in automotive gasoline or diesel engines where the OEM recommends an ACEA C3 or API SN/CF or earlier SAE 5W-30 engine oil.

Advanced European Performance Mid SAPs SAE 5W-30 is blended from a unique combination of select synthetic base fluids to provide the following performance 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 enhanced 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 these synthetic base fluids is a highly advanced European performance additive system and a highly shear stable viscosity index improver that provides the following performance benefits and features:

1. Outstanding protection against the formation of high temperature deposits
2. High detergency and dispersancy to suppress the formation of deposits, sludge and varnish buildup to help maintain engine performance, fuel economy and emissions
3. Enhanced protection against the formation of sludge and varnish deposits
4. Active cleaning agents for increased and enhanced engine cleanliness
5. Exceptional piston and piston ring 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. Superior performance protection against oxidative thickening
9. Excellent low temperature flow characteristics and pumpability that provides rapid circulation and pumpability in order to minimize wear during cold weather start-up
10. Excellent viscosity control and resistance to thinning at high engine operating temperatures
11. Excellent shear stability to resist viscosity shear down and breakdown

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12. 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
13. Outstanding rust and corrosion protection
14. Substantial reductions in ring, cylinder liner, bearing and valve-train wear for increased engine life
15. Reduced oil consumption that ensures maximum potential is available from the engine oil throughout the drain interval
16. Excellent light duty diesel engine performance for modern direct injection engines with diesel particulate filters
17. Unsurpassed levels of protection across a variety of driving conditions and temperatures thus providing maximum short and long term engine performance

Advanced European Performance Mid SAPs SAE 5W-30 also contains two proven frictional modifiers, Micron Moly®, a liquid soluble molybdenum and Schaeffer Mfg.'s own proprietary additive, Penetro®. Once plated, these two proven frictional modifiers form a long lasting, slippery, tenacious lubricant film, which prevents metal surfaces from coming into contact with each other and helps prevent damaging frictional wear, reduce wear and provide:

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

Advanced European Performance Mid SAPs SAE 5W-30 meets, exceeds and is suitable for use for the following specifications: ACEA C3-2012; API Service Classification SN/CF; GM dexos®-2 compliant, VW 502.00/505.00, Mercedes Benz MB 229.31; Porsche A40.
Advanced European Performance Mid SAPs SAE 5W-30 is also suitable for use in those applications that specify the use of BMW Long Life-04, MB 229.51, Chrysler MS-11106 and VW 504.00/507.00 quality engine oil at the recommended OEM drain intervals.

TYPICAL PROPERTIES

SAE Grade	**5W-30**
Specific Gravity (ASTM D-1298)	0.8522
Viscosity @ 40°C, cSt (ASTM D-445)	74.7
Viscosity @ 100°C, cSt (ASTM D-445)	12.4
Viscosity Index (ASTM D-2270)	165
High Temperature/High Shear Viscosity 302°F/150°C, cP (ASTM D-4683)	3.6
Cold Cranking Viscosity (ASTM D-5293) @-30°C, cP	5,870
MRV TP-1 Pumping Viscosity, cP@-35°C (ASTM D-4684)	26,000
Flash Point °F/°C (ASTM D-92)	435°/224°
Pour Point °F/°C (ASTM D-97)	-38°/-39°
Total Base Number (ASTM D-2896)	7.8
Sulfated Ash Content % wt. (ASTM D-874)	0.8%
Noack Volatility % Evaporative Loss (ASTM D-5800)	10%
TEOST MHT ASTM D-7097, Total Deposits, mg	28
Zinc, ppm ICP	781-971
Phosphorus, ppm ICP	744-843