



Full Synthetic Euro 5W-40

STARFIRE Full Synthetic Euro SAE 5W-40 engine oil is specially formulated for the lubrication needs of modern European gasoline and diesel cars and light trucks.

BENEFITS

- Formulated with advanced 100% synthetic base stocks, premium anti-wear additives and a 5W-40 viscosity rating that is the preferred oil for virtually all European automobiles, especially turbo-charged models.
- Provides outstanding protection in high RPM, hot running engines.
- Specially designed to prevent sludge and varnish deposits for reduced oil consumption, extended engine life and maximum overall performance resulting in a clean engine.
- Designed for newer vehicle emission control systems
- Meets industry and vehicle manufacturer requirements for long life protection of gasoline vehicle catalytic converters.
- Delivers dependable long-term performance for the extended drain intervals set by all major automakers- Audi, BMW, Mercedes-Benz, Opel, Porsche, Renault, Skoda, SEAT, Volkswagen.

STARFIRE Full Synthetic Euro 5W-40 meets or exceeds the following performance specifications: API SN and SM, ACEA A3/B3 and A3/B4, BMW LL-01, MERCEDES BENZ 229.5, 229.3, PORSCHE A40, OPEL GM-LL-B-025, RENAULT 0700 AND 0710 VOLKSWAGEN 501 01, 502 00, 505 00

TYPICAL RESULTS

Specific Gravity @ 60°F (15.6°C)	ASTM D4052	0.8551
Viscosity @ 40°C cSt	ASTM D445	77.27
Viscosity @ 100°C cSt	ASTM D445	13.18
Viscosity Index	ASTM D2270	173
Pour Point °C (°F)	ASTM D5950	-45°C (-49°F)
Color	ASTM D1500	2
Cold Cranking Simulator at (°C), cP	ASTM D5293	6083 (-30)
High Temperature / High Shear Vis at 150°C, cP	ASTM D5481	3.7
Noack Volatility, % loss	ASTM D6375	10
Calcium, wt. %	ASTM D5185	0.26
Zinc, wt. %	ASTM D5185	0.102
Phosphorus, wt. %	ASTM D5185	0.092
Sulfur, wt. %	ASTM D4951	0.19
Boron, wt. %	ASTM D5185	0.007
Nitrogen, wt. %	ASTM D4629	0.089
Pumping Viscosity at (°C), cP	ASTM D4684	28,400 (-35)
Gravity, °API	ASTM D287	33.98
TBN, mgKOH/g	ASTM D2896	9.8