



PRODUCT INFORMATION & DATA SHEET

PRINCE® FS1 SAE 5W-40

The Flagship State-of-art P-9 Ester Fully Synthetic Motor Oil.

FS1 SAE 5W-40 is a state-of-art fully synthetic motor oil that has been engineered with our proprietary P-9 Ester base oil and fortified with advanced additive technology. This product features enhanced thermal stability along with higher viscosity index and better low and high temperature lubricity in comparison to common fully synthetic base oils.

Our FS1 series will exceed the requirements of API SP performance standards that offer significantly improved engine protection, mechanical efficiency and fuel economy than API SN Plus and SN motor oil. In addition, the newly improved motor oil products of the FS1 series fulfils or even exceeds the stringent European automotive manufacturer specifications with reliably exhaust emissions systems protection.

This product features specifically designed friction modifier and anti-wear additive package for unsurpassed metal-to-metal wear protection, especially for modern turbocharged and direct injection engines, and particularly those equipped with timing chain belt and 'idle-stop' system, prevents pre-ignition event occur at low-speed.

This motor oil meets or even exceeds the following list of OEM's approvals and standards:

API SP, BMW LL-01, Chrysler MS-10850/ MS-10896, Daimler MB-Approved 229.3/ 229.5, Fiat 9.55535-GH2/ 9.55535-Z2, Ford WSS-M2C917-A, GM-LL-B-025, Porsche A40, PSA B71 2296, Renault RN0700/ RN0710, VW 502.00/ 505.00/ 505.01

Some of the benefits of using this motor oil:

- Contains specially formulated anti-wear additive technology to reduce wear on engine moving parts, effectively prolong engine life.
- Designed with thermal resistance capable to resist deposits build-up and black sludge formation to maintain and improve engine cleanliness.
- Excellent ageing and oxidation stability, minimizes oil degradation and additive depletion within the designated drain interval, well assured motor oil to 'stay-in-grade'.
- Exceptional oil performance in extreme temperature, promotes quicker oil penetrating during cold temperature, allows maximize engine protection.
- High and stable viscosity index (VI) of this motor oil offers outstanding overall lubrication performance from casual to extreme operating conditions.
- Naturally low volatility properties of ester base oils facilitate lower evaporation loss, thence reduce motor oil consumption and lessen pollution.
- Outstanding friction reduction agents help reduce internal friction and promote more effective lubrication flow through the engine, ultimately reduce fuel consumption.
- Suitable for extended oil drain intervals, follow manufacturer's instruction and recommendation.
- Tested safe on exhaust emission reduction systems that include catalytic converter, gasoline particulate filter and diesel particulate filter.

Areas of application

Designed for use in high-performance and common passenger cars, sport utility vehicles (SUVs), light commercial trucks powered by gasoline, diesel, liquefied petroleum gas that specified using either an API SP, SN Plus, SN (gasoline) or API CF (diesel) motor oil by the engine assemblies and vehicle manufacturers. This motor oil is backward compatible with all previous API specifications.

Suitable to use with natural aspirated, supercharged, turbocharged, fuel direct injection engines that required the viscosity as well as any OEM's specifications of this motor oil. Tested safe to use with modern exhaust emissions systems that include catalytic converters, gasoline particulate filters (GPF) and diesel particulate filters (DPF).

Typical properties

<u>SAE Viscosity</u>		<u>5W-40</u>
Viscosity Index (VI)	ASTM D2270	173
Viscosity at 100 °C; mm ² /s	ASTM D445	14.5
Viscosity at 40 °C; mm ² /s	ASTM D445	89.1
Density at 15 °C; kg/m ³	ASTM D4052	865.0
HTHS Viscosity at 150 °C; cP	ASTM D4683	3.65
Flash Point; °C	ASTM D92	242
Pour Point; °C	ASTM D97	-45
Total Base Number	ASTM D2896	10.5

Service recommendations

Follow the oil drain interval required by the respective manufacturers. Observe the owner's manual booklet. Recommend to flush before add in new oil. Change oil filter at time of oil change.

Commercially available product compatibility

Our fully synthetic motor oil is compatible with other fully synthetic, synthetic and/or conventional motor oils. Peak performance is guaranteed only upon using alone without mixing with other motor oils. Our motor oil products are designed and developed with appropriate additive package. Hence, aftermarket oil additive products are not recommended for used alongside.

Product availability

This product may not be available locally. Contact your local distributor.

The information show herein is subject to change without noticed. The product indicated here have been developed by PRINCE LUBRICANTS for use in the areas of applications shown. We reserve all right to alter the characteristics and product properties to align with continually technical development.