



## PRODUCT INFORMATION & DATA SHEET

### PRINCE® FS2 SAE 5W-40

The Par-Excellence Fully Synthetic Motor Oil.

FS2 SAE 5W-40 is a broadly applicable high-performance motor oil that has been formulated to meet and even exceeds the performance requirements of API SN standard and major vehicle manufacturers, allowing maximum engine and turbocharger protection and piston deposits control on the more prevalent gasoline engine designs, including those equipped with idle-stop systems.

This motor oil ensures direct injection engines have the highest protection against stochastic pre-ignition (LSPI) phenomenon caused by high-pressure build-up in the cylinder parts.

It is fortified with superb cleaning and dispersant agents for optimal sludge control and high-temperature deposits elimination on pistons and camshafts, guarantees the most reliable engine cleanliness until the next oil change interval. Tested safe on catalytic converters including TWC.

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

API SN, API CH-4, ACEA A3/B4, BMW LL-01, Chrysler MS-10850/ MS-10896, Fiat 9.55535-H2, GM LL-B-025, MB 229.3/ 229.5, PSA B71 2296, Renault RN0700/ RN0710, VW 502.00/ 505.00

Some of the benefits of using this motor oil:

- Contains specially formulated anti-friction and anti-wear additive technology to minimize wear formation and deliver excellent drivability.
- Designed with thermal resistance to resist high-temperature deposits and black sludge to maintain the cleanliness of the engine.
- Excellent shear and oxidation stability, minimizes oil degradation and thickening within the designated drain interval.
- Exceptional formulation complies with ILSAC GF-5 to improve gasoline fuel efficiency including engines operating on ethanol-containing fuels up to E85.
- Good lubrication capacities in winter ambient, promotes easier cold-start and pumpability which allowed rapid engine protection.
- Low evaporation losses therefore it helps reduce oil consumption and able to maintain desired oil pressure level.
- Outstanding protection on timing chain of the camshafts and crankshaft allowing precise operation timing of engine valves during each cylinder firing.
- Tested safe on Three-way catalysts (TWCs) and sealing materials at large bandwidth of temperatures.

## Areas of application

For use in naturally aspirated, turbocharged, direct/indirect injection, multi-valve, VVT engines with and without catalytic converter required using an API SN (gasoline) or an API CF/CH-4 (diesel) specified motor oil.

The API SN and ILSAC GF-5 standards are completely backward compatible with previous API and ILSAC specifications.

Note: Not suitable for use in the current EURO 4, 5 and 6 diesel engine designs equipped with modern exhaust gas recirculation systems.

## Typical properties

<u>SAE Viscosity</u>		<u>5W-40</u>
Viscosity Index (VI)	ASTM D2270	165
Viscosity at 100 °C; mm <sup>2</sup> /s	ASTM D445	13.5
Viscosity at 40 °C; mm <sup>2</sup> /s	ASTM D445	83.2
Density at 15 °C; kg/m <sup>3</sup>	ASTM D4052	855.0
HTHS Viscosity at 150 °C; cP	ASTM D4683	3.7
Flash Point; °C	ASTM D92	228
Pour Point; °C	ASTM D97	-34

## 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.