

- Certificate / Product Information -

RAVENOL VSI SAE 5W-40

Art. 1111130

FULLY SYNTHETIC

USVO® & CleanSynto®

Description:

RAVENOL VSI SAE 5W-40 is a PAO (Polyalphaolefin) based, fully synthetic low friction motor oil with especially USVO® and proven CleanSynto® technology for passenger car petrol and diesel engines with and without turbo-charging and direct injection.

Due to the USVO® technology we achieve an extremely high viscosity stability. We avoid the disadvantages of polymeric viscosity improvers while taking advantage of them. This improves engine protection, performance, engine cleanliness and oil drain intervals. The USVO® technology makes it possible that the product has no shear losses during the entire change interval and is extremely stable to oxidation. This unique technology helps oil to be lubricated faster, thereby minimizing friction while keeping the engine clean and efficient.

With its new formulation, **RAVENOL VSI SAE 5W-40** provides a safe layer of lubrication even at very high operating temperatures and protects from corrosion and loss of oil through oxidation or coking. The excellent cold start behavior ensures optimum lubrication safety during the cold running phase.

By significantly reducing fuel consumption, **RAVENOL VSI SAE 5W-40** helps to protect the environment by reducing emissions.

RAVENOL VSI SAE 5W-40 guarantees operational safety in all driving conditions, such as extreme stop-and-go traffic as well as high-speed highway driving.

RAVENOL VSI SAE 5W-40 minimizes friction, wear and fuel consumption with excellent cold start characteristics.

Extended oil change intervals according to the manufacturer's instructions.

Application Directions:

RAVENOL VSI SAE 5W-40 is suitable for the energy saving operation all the year of all modern cars with petrol and diesel engines and was specially developed for turbo chargers as well as the catalytic operation.

Quality Classification:

RAVENOL VSI SAE 5W-40 is approved, tried and tested for aggregates specifying:

Specifications: API SN/CF; ACEA A3/B4

License: API SN

Approvals: MB-Approval 229.3; Porsche A40 (currently valid for all PORSCHE cars as of model year 1994 except Cayenne V6 and all PORSCHE Hybrid cars for longdrain and except all PORSCHE Diesel cars); RENAULT RN0700, RN0710; VW 502 00 / 505 00

Recommendations: BMW Longlife-01; Chrysler MS-10850, MS-10896; Fiat 9.55535-H2; MB 226.5; Opel GM-LL-B-025; PSA B71 2296

Technical Characteristics:

RAVENOL VSI SAE 5W-40 offers:

- High abrasion resistance
- Fuel saving because of easy running characteristics
- Excellent detergent and dispersant characteristics
- Prevention of black sludge creation
- Long endurance because of high oxidation stability
- Excellent cold start performance
- Very good viscosity temperature behaviour
- Low evaporation
- Suitable for catalysts

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Technical Values:

Characteristics	Unit	Data	Test according to
Density at 20 °C	kg/m³	843,0	EN ISO 12185
Colour		yellow brown	visual
Viscosity at 100 °C	mm²/s	14,1	DIN 51562-1
Viscosity at 40 °C	mm²/s	85,3	DIN 51562-1
Viscosity Index VI		172	DIN ISO 2909
HTHS Viscosity at 150 °C	mPa*s	3,84	ASTM D5481
CCS Viscosity at -30 °C	mPa*s	4220	ASTM D 5293
Low Temp. Pumping viscosity (MRV) at -35 °C	mPa*s	18.600	ASTM D4684
Pourpoint	°C	-51	DIN ISO 3016
Noack Volatility	% M/M	6,9	ASTM D5800
Flashpoint	°C	238	DIN ISO 2592
TBN	mg KOH/g	10,0	ASTM D2896
Sulphated ash	%wt.	1,39	DIN 51575

All indicated data are approximate values and are subject to the commercial fluctuations.