

## - Certificate / Product Information -

### **RAVENOL VSW SAE 0W-30**

Art. 1111106

FULLY SYNTHETIC

USVO® & CleanSynto®

#### **Description:**

**RAVENOL VSW SAE 0W-30** 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.

**RAVENOL VSW SAE 0W-30** lengthens the service life of the diesel particulate filter by reducing the concentration of ash-forming particles in the exhaust gas. It reduces the emissions of gases which are harmful to the environment. It delivers a higher degree of security by providing lasting protection for engines.

With its new formulation, **RAVENOL VSW SAE 0W-30** 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 VSW SAE 0W-30** helps to protect the environment by reducing emissions.

**RAVENOL VSW SAE 0W-30** minimizes friction, wear and fuel consumption with excellent cold start characteristics.

**RAVENOL VSW SAE 0W-30** guarantees operational safety in all driving conditions, such as extreme stop-and-go traffic as well as high-speed highway driving.

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

#### **Application Directions:**

**RAVENOL VSW SAE 0W-30** can be used in all VW vehicles (with the exception of R5 and V10 TDI pump-nozzle injector engines with and without DPF (e.g. in the Phaeton and the Touareg) and with and without LongLife Service)

#### **Quality Classification:**

**RAVENOL VSW SAE 0W-30** is approved, tried and tested for aggregates specifying:

Specification: ACEA C3

Approvals: VW 504 00 / 507 00

Recommendation: Chrysler MS-1106

#### **Technical Characteristics:**

**RAVENOL VSW SAE 0W-30** offers:

- Particularly low-friction characteristics and an outstanding range of benefits thanks to special additives.
- Outstanding engine protection even after a cold start and in tougher conditions.
- Guarantees rapid engine lubrication even at low temperatures of under -30°C and a sufficiently thick film of lubrication even at oil temperatures of >150°C during high-speed journeys.
- Guarantees the best possible protection against wear and tear and the highest level of engine cleanliness while also consuming less fuel (fuel economy characteristic).
- The hydraulic tappets are guaranteed to function at all temperatures due to adequate oil pressure.
- Does not have an impact on sealants.
- Safeguards the engine against sludge formation, coking, lacquering and corrosion even in unfavourable operating conditions.

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**Technical Values:**

Characteristics	Unit	Data	Test according to
Density at 20°C	kg/m <sup>3</sup>	846,0	EN ISO 12185
Colour		brown	visual
Viscosity at 100°C	mm <sup>2</sup> /s	12,0	DIN 51562-1
Viscosity at 40°C	mm <sup>2</sup> /s	60,8	DIN 51562-1
Viscosity Index VI		197	DIN ISO 2909
HTHS Viscosity at 150°C	mPa*s	3,6	ASTM D5481
CCS Viscosity at -35°C	mPa*s	5565	ASTM D5293
Low Temp. Pumping viscosity (MRV) at -40°C	mPa*s	14.800	ASTM D4684
Pourpoint	°C	-60	DIN ISO 3016
Noack Volatility	% M/M	9,0	ASTM D5800
Flashpoint	°C	234	DIN ISO 2592
TBN	mg KOH/g	7,6	ASTM D2896
Sulphated ash	%wt.	0,63	DIN 51575

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