

## -Certificate / ProductInformation-

### RAVENOL Eco Synth EFS SAE 0W-20

Art. 1111105

FULLY SYNTHETIC

Eco Synth

USVO® & CleanSynto®

#### Description:

**RAVENOL Eco Synth EFS SAE 0W-20** 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 Eco Synth EFS SAE 0W-20** minimizes friction, wear and fuel consumption with excellent cold start characteristics.

With its new formulation, **RAVENOL Eco Synth EFS SAE 0W-20** 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.

**RAVENOL Eco Synth EFS SAE 0W-20** helps to avoid low speed pre-ignition LSPI (Low Speed Pre-ignition). This can help avoid engine damage.

By significantly reducing fuel consumption, **RAVENOL Eco Synth EFS SAE 0W-20** helps to protect the environment by reducing emissions.

**RAVENOL Eco Synth EFS SAE 0W-20** minimizes friction, wear and fuel consumption with excellent cold start characteristics.

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

#### Application Directions:

**RAVENOL Eco Synth EFS SAE 0W-20** is universal fuel-economy engine oil, suitable for all modern passenger car gasoline and diesel engines where this grade of oil is recommended.

#### Quality Classification:

**RAVENOL Eco Synth EFS SAE 0W-20** is approved, tried and tested for aggregates specifying:

Specification: API SN Plus (RC), ILSAC GF-5, ACEA C5

Approval: BMW Longlife-17 FE+, MB-Approval 229.71, VOLVO VCC RBS0-2AE 0W-20 - Service Fill

Recommendations: Chrysler MS-13340; Opel/Vauxhall (ex GM Europa) OV0401547 (ex Dexos2 gen 2); Honda; Nissan; Mazda; Suzuki; Toyota.

Follow manufacturer's recommendations.

#### Technical Characteristics:

**RAVENOL Eco Synth EFS SAE 0W-20** offers:

- Guaranteed fastest possible lubrication of the engine.
- High fuel economy (FE) effect due to the base oils and additives used. Low volatilization tendency, thereby lower oil consumption.
- Provides protection against sludging, coking, varnish and corrosion even under unfavorable operating conditions.
- No oil-related deposits in combustion chambers in the piston ring zone and on valves.
- Ensures the function of the hydraulic tappets at all temperatures.
- Stable engine oil, no NOx oxidation.
- Good soot absorption and dispersion.
- Neutral towards sealing materials.

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#### Technical Values:

Characteristics	Unit	Data	Test according to
Density at 20°C	kg/m³	844,0	EN ISO 12185
Colour		yellow brown	visual
Viscosity at 100°C	mm²/s	8,3	DIN 51562-1
Viscosity at 40°C	mm²/s	42,7	DIN 51562-1
Viscosity Index VI		173	DIN ISO 2909
HTHS Viscosity at 150°C	mPa*s	2,65	ASTM D5481
CCS Viscosity at -35°C	mPa*s	4700	ASTM D5293
Low Temp. Pumping viscosity (MRV) at -40°C	mPa*s	10.240	ASTM D4684
Pourpoint	°C	-63	DIN ISO 3016
Noack Volatility	% M/M	9,7	ASTM D5800
Flashpoint	°C	230	DIN ISO 2592
TBN	mg KOH/g	7,5	ASTM D2896
Sulphated ash	%wt.	0,47	DIN 51575

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