

- Certificate / Product Information -

RAVENOL DFE SAE 0W-20

Art. 1111109

FULLY SYNTHETIC

USVO® & CleanSynto®

Description:

RAVENOL DFE 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 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 DFE SAE 0W-20 utilizes the positive properties of tungsten to smooth the surface structure of the motor, reducing friction and wear, and significantly improving mechanical efficiency.

RAVENOL DFE SAE 0W-20 ensures the prevention of premature fuel ignition LSPI (Low Speed Pre-ignition), thus avoiding engine damage. The excellent cold start behavior ensures optimum lubrication safety during the cold running phase.

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

RAVENOL DFE 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 DFE SAE 0W-20 is suitable as a high-performance light-running engine oil for demanding engines. It is recommended for modern passenger car engines from OPEL, GENERAL MOTORS, Chevrolet, Daewoo and Holden according to Dexos1 specification under all operating conditions.

RAVENOL DFE SAE 0W-20 is also applicable to the specified specifications of Ford and Chrysler.

Quality Classification:

RAVENOL DFE SAE 0W-20 is approved, tried and tested for aggregates specifying:

Specifications: API SP (RC), API SN Plus; ILSAC GF-6A

License: API SP Resource Conserving, API SN Plus; ILSAC GF-6A

Approval: GM dexos1™ Gen 2 (License No. D10689HJ081)

Recommendations: Chrysler MS-6395, MS-13340; Ford WSS-M2C947-A/-B1.

Follow manufacturer's recommendations.

Technical Characteristics:

RAVENOL DFE SAE 0W-20 offers:

- Fuel savings in partial and full load operation
- LowSAPS = Low sulfate ash, phosphorus and sulfur
- Very stable and excellent viscosity behavior
- Excellent shear stability
- Very good cold start characteristics
- A safe lubrication film at very high operating temperatures
- Very good detergents and dispersing properties
- Very good wear and corrosion protection
- Protection from foam formation
- Excellent detergent and dispersant properties
- Long life due to high oxidation stability
- Catalyst suitability

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Technical Values:

Characteristics	Unit	Data	Test according to
Density at 20°C	kg/m³	840,0	EN ISO 12185
Colour		yellow brown	visual
Viscosity at 100°C	mm²/s	8,4	DIN 51562-1
Viscosity at 40°C	mm²/s	45,9	DIN 51562-1
Viscosity Index VI		163	DIN ISO 2909
HTHS Viscosity at 150°C	mPa*s	2,69	ASTM D5481
CCS Viscosity at -35°C	mPa*s	4150	ASTM D5293
Low Temp. Pumping viscosity (MRV) at -40°C	mPa*s	11.200	ASTM D4684
Pourpoint	°C	-63	DIN ISO 3016
Noack Volatility	% M/M	7,6	ASTM D5800/b
Flashpoint	°C	238	DIN ISO 2592
TBN	mg KOH/g	9,0	ASTM D2896
Sulphated ash	%wt.	0,8	DIN 51575

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