



## RAVENOL DFE SAE 0W-20

RAVENOL DFE SAE 0W-20 is a fully synthetic low friction engine oil based on PAO (Polyalphaolefines) with CleanSynto® technology for car gasoline engines with and without turbocharging like Turbo-GDI and direct injection. Turbocharger and charge air cooler are kept clean.

RAVENOL DFE SAE 0W-20 minimizes friction, wear and fuel consumption. Extended oil change intervals according to the manufacturer 's instructions.

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.

### Application Notes

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.

### **Specifications**

API SN (RC), ILSAC GF-5, API CF

### **Approvals**

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### **Practice and tested in aggregates with filling**

Ford WSS-M2C947-A, Chrysler MS-6395

### **Characteristic**

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

Characteristics	Unit	Data	Audit
Density at 20°C	kg/m <sup>3</sup>	840	DIN 51757
Colour		gelbbraun	visual
Viscosity at 100°C	mm <sup>2</sup> /s	8,4	DIN 51 562
Viscosity at 40°C	mm <sup>2</sup> /s	45,9	DIN 51 562
Viscosity index VI		163	DIN ISO 2909
HTHS at 150°C	mPa*s	2,7	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 D 4684
Pourpoint	°C	-63	DIN ISO 3016
Noack Volatility	%	7,6	ASTM D5800/b
Flash point (COC)	°C	238	DIN ISO 2592
TBN	mg KOH/g	9,0	ASTM D2896
Sulphated ash	%wt.	0,8	DIN 51 575

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

All information correspond to the best of our knowledge to the actual situation of the cognitions and our development. Subject to alterations. All references made to DIN-norms are only for the description of the goods. There is no guarantee. In case there will be any problems please contact the technical service.

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