



Havoline® Synthetic 5W-40

Ultra high performance fully synthetic engine lubricant

Product Data Sheet

Customer benefits

World-class wear protection

Havoline Synthetic 5W-40 is a world-class fully synthetic engine lubricant featuring highly advanced additive systems, delivering ultimate engine protection in high performance passenger or sports car engines, under the most demanding driving conditions. Havoline Synthetic 5W-40 exhibits extremely low oil consumption characteristics over very long service periods.

Havoline Synthetic 5W-40's leading edge high durability formulation ensures that it stays in-grade over exceptionally long service periods, delivering maximum performance and engine wear and corrosion protection throughout its long service life.

Wide temperature performance

Havoline Synthetic 5W-40 delivers total engine protection across the temperature spectrum. From the most extreme high speed, full-power driving conditions, to city stop start driving at extremely high operating temperatures, Havoline Synthetic 5W-40 is highly resistant to oxidation and the formation of deposits, including varnish and black sludge - maximising engine cleanliness.

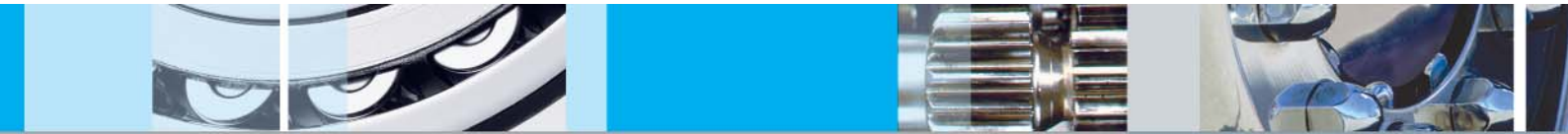
This outstanding wide temperature performance also delivers next generation engine wear protection at very low temperatures, ensuring maximum lubricant fluidity and rapid, world-class oil film coverage and component protection throughout the engine in very cold start situations.

Applications

- High performance naturally aspirated and turbocharged passenger and sports car gasoline engines.
- Latest generation naturally aspirated and turbocharged passenger car diesel engines.
- Suitable for vehicles with catalytic converters.

Product features:

Havoline Synthetic 5W-40 is a next-generation engine lubricant designed to deliver world-class protection to modern, high performance naturally aspirated or turbocharged gasoline and diesel passenger car power units and high-powered sports car engines.



Specifications and approvals

Havoline Synthetic 5W-40 meets the former API SJ/SH/SG/CD and/or CCMC G5 or PD2 specifications. Havoline Synthetic 5W-40 surpasses the following gasoline and diesel engine oil performance standards and approvals:

- Certified against: ACEA A3/B3-04
- Licensed as: API SL/CF

Manufacturers approvals

- MB-Approval 229.1
- BMW BMW longlife 98 oil



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continued

Product specifications

HAVOLINE SYNTHETIC 5W-40		
TYPICAL DATA		
TEST	TEST METHODS	RESULTS
Viscosity Grade		5W-40
Density, 15 °C, kg/l	ASTM D4052	0.85
Kinematic Viscosity at 40 °C, mm ² /s	ASTM D445	86.8
Kinematic Viscosity at 100 °C, mm ² /s	ASTM D445	13.8
Viscosity Index	ASTM D2270	163
Cranking Viscosity at -30 °C, mPa.s	ASTM D5293	4600
HTHS Viscosity, 150 °C, mPa.s	CEC-L-36-A-90	3.8
Pumping Viscosity at -35 °C, mPa.s	ASTM D4684	21800
Pour Point, °C	ASTM D97	-51
Flash Point COC, °C	ASTM D92	230
Total Base Number, mg KOH/g	ASTM D2896	9.5
Sulphated Ash, %wt	ASTM D874	1.2
Colour	ASTM D1500	<4.0
Copper Corrosion 3hrs at 100 °C	ASTM D130	1a

The information given in the typical data does not constitute a specification but is an indication based on current production and can be affected by allowable production tolerances. The right to make modifications is reserved. This supersedes all previous editions and information contained in them.

Disclaimer Chevron accepts no liability for any loss or damage suffered as a result of using this product for any application other than applications specifically stated in any Product Data Sheet's.

Health, safety, storage and environmental Based on current available information, this product is not expected to produce adverse effects on health when used for the intended application and in accordance with the recommendations provided in the Material Safety Data Sheet (MSDS). MSDS's are available upon request through your local sales office, or via the Internet. This product should not be used for purposes other than its intended use. When disposing of used product, take care to protect the environment and follow local legislation.