HAVOLINE® HIGH MILEAGE SYNTHETIC TECHNOLOGY MOTOR OIL

SAE 0W-20, 5W-20, 5W-30, 10W-30

PRODUCT DESCRIPTION

Havoline® High Mileage Synthetic Technology Motor Oil is a premium synthetic technology oil with Deposit Shield® Technology specially designed for high-mileage engines or vehicles of any age. Formulated with seal conditioning agents and extra cleaning and anti-wear additives compared to conventional oil, to help extend the life of engines, particularly in severe driving conditions.

FEATURES/BENEFITS

Chevron Havoline High Mileage Synthetic Technology Oil has advanced additives that can help maintain the condition of seals and gaskets to control oil consumption. It is especially suited for the unique needs of engines that have accumulated 75,000 miles or more and is designed to:

- Help reduce leak and prevent oil consumption.
- Reduce evaporative oil loss at high temperature compared to conventional motor oils.
- Help reduce sludge and deposit buildup to keep engines running longer.
- Provide superior mitigation against Low Speed Pre-Ignition (LSPI) in turbocharged direct injection engines to protect critical engine parts.
- Preserve fuel economy better than conventional motor oils which helps save on fuel costs.
- Deliver better cold-start performance down to -35°C (0W-20) and -30°C (5W-30).

PERFORMANCE CLAIMS

- Unsurpassed sludge control up to 25% better than GF-6 limits[1].
- Retains fuel economy up to 35% better than GF-6 limits[2].
- Fights temperature-related oil breakdown and oil thickening.
- Reduces friction-related wear of critical engine parts up to 25% better than industry GF-6 limits[3].
- Superior corrosive wear protection of key engine parts up to 64% better than GF-6 limits[4].

1. Based on Sequence VH sludge and varnish test using SAE 0W-20
2. Based on Sequence VIE fuel economy test using SAE 10W-30
3. Based on Sequence IVB valvetrain wear test using SAE 0W-30
4. Based on Sequence VIII corrosion test using SAE 5W-30

Product(s) manufactured in the USA.
Always confirm that the product selected is consistent with the original equipment manufacturer's recommendation for the equipment operating conditions and customer's maintenance practices.

A **Chevron** company product

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APPLICATIONS, SPECIFICATIONS & APPROVALS

Both high mileage and newer cars, SUV, and light truck engines, including high-revving and/or turbocharged engines where ILSAC GF-6 and/or API SP or previous specification is specified (specification depends on specific oil grade). Also recommended for use in mobile and stationary equipment where an API SP or previous "S" category oil, and the appropriate viscosity grade is stipulated.

Meets or exceeds the following industry and OEM standards:

Specifications	0W-20	5W-20	5W-30	10W-30
API SP/SN Plus/Resource Conserving	X	X	X	X
ILSAC GF-6A	X	X	X	X
Chrysler MS-6395	X	X	X	X
Fiat 9.55535-CR-1	X	X	X	X
Ford WSS-M2C930-A		X		
Ford WSS-M2C960-A1[1]		X		
Ford WSS-M2C961-A1[2]			X	
Ford WSS-M2C962-A1[3]	X			
GM 6094M		X	X	X

1 Compatible with Ford WSS-M2C945-A1/B1
2 Compatible with Ford WSS-M2C946-A1/B1
3 Compatible with Ford WSS-M2C947-A1/B1

TYPICAL TEST DATA

SAE Grade	Test Method	0W-20	5W-20	5W-30	10W-30
Product Number		*212045*	*224110*	*224111*	*224112*
SDS Number		*52146*	*52628*	*52649*	*52655*
Density at 15°C, kg/l	ASTM D4052	0.8455	0.8613	0.8597	0.8720
Viscosity, Kinematic mm^2/s at 40°C mm^2/s at 100°C	 ASTM D445 ASTM D445	 43.3 8.2	 51.0 8.8	 62.5 10.5	 68.9 10.6
Viscosity, Cold Crank (CCS) (cP), CCS @ °C	ASTM D5293	-35/5900	-30/5800	-30/5900	-25/5700
Viscosity Index	ASTM D2270	168	153	159	143
Flash Point, °C(°F)	ASTM D92	232(450)	232(450)	228(442)	238(460)
Sulfated Ash, mass %	ASTM D874	0.9	0.9	0.9	0.9
Phosphorus, mass %	ASTM D4951	0.077	0.077	0.077	0.077
Zinc, mass %	ASTM D4951	0.089	0.089	0.089	0.089

Minor variations in product typical test data are to be expected in normal manufacturing.

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