



# HAVOLINE<sup>®</sup> MOTOR OILS WITH DEPOSIT SHIELD<sup>™</sup>

## SAE 5W-20, 5W-30, 10W-30, 10W-40, 20W-50, 30, 40

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### CUSTOMER BENEFITS

Havoline Motor Oils with Deposit Shield<sup>™</sup> deliver value through:

- **Excellent antiwear protection**
- **Protection against thermal breakdown**
- **Clean engines** and clean positive crankcase ventilation systems resulting from minimal deposit formation under heavy load and stop-and-go driving conditions.
- **Meets or exceeds warranty requirements** of car and light truck manufacturers relying on an API SM motor oil.
- **Better high temperature control**

### FEATURES

Havoline Motor Oils with Deposit Shield are premium quality automotive engine oils.

All grades are formulated with high quality base stocks, a shear-stable viscosity index improver, and contain detergent, dispersant, wear control, antioxidant, corrosion inhibitor, and foam suppressant additives.

Their antiwear additives provide excellent wear protection of critical engine parts.

A high level of dispersancy in Havoline Motor Oils with Deposit Shield protects against deposit and sludge formation in stop-and-go driving and sustained high temperature operation, and protects against corrosion.

Their excellent high temperature oxidation stability prevents viscosity increase and oil gelling in the crankcase. They keep PCV systems clean to maintain smooth engine performance.

### APPLICATIONS

Havoline Motor Oils with Deposit Shield are recommended for all four-stroke gasoline engines used in passenger cars, light trucks, powerboats, motorcycles, and other mobile and stationary equipment. They are excellent for high-revving engines in small cars and light trucks. All grades are specially formulated for use in both new and high-mileage cars, and in turbocharged as well as normally aspirated engines.

**SAE 5W-20** provides optimum fuel economy and durability performance. It is recommended for Ford and Honda vehicles specified for this viscosity grade.

**SAE 5W-30** is recommended by the majority of auto manufacturers for most of their late model North American vehicles, under all weather conditions. It is also recommended for use at very low temperatures involving cold starting, and for high fuel economy.

**SAE 10W-30** is recommended for many older vehicles and a few late model cars and trucks, often those with larger 6-cylinder and V-8 and/or high performance engines. SAE 10W-30 provides improved fuel economy relative to heavier viscosity grades.

**SAE 10W-40** is still a very popular viscosity grade in warmer climates, though it is not recommended by most auto manufacturers for their late model North American vehicles. It is often recommended for older model cars that see regular high temperature operation.

**SAE 20W-50** is recommended primarily for older engines for use in high temperature and heavy duty operations such as towing heavy trailers at highway speeds or up inclines for long periods of time. It is also recommended for some high performance engines used in racing and rallying.

Havoline Motor Oils with Deposit Shield **SAE 30** and **SAE 40** can be used in any engine application where an SAE 30 or SAE 40 passenger car motor oil of API SM or any previous "S" category is recommended. They perform exceptionally well in small four-stroke engines found in lawn mowers, garden tractors, and snow blowers, and in refrigeration or air-conditioning engines on trucks and buses.

Note: Always consult your owner's manual regarding viscosity grade.

Havoline Motor Oils with Deposit Shield meet:

- **API Service Categories**

- SM, SL, SJ, SH<sup>1</sup> and all previous API "S" categories
- Energy Conserving for API SM (SAE 5W-20, 5W-30, 10W-30)
- ILSAC GF-4 (SAE 5W-20, 5W-30, 10W-30)

- **manufacturers' performance requirements**

- **Daimler Chrysler**  
MS-6395N (SAE 5W-20, 5W-30, 10W-30)
- **Ford**  
WSS-M2C930-A (SAE 5W-20)  
WSS-M2C929-A (SAE 5W-30)
- **General Motors**  
GM 6094M (SAE 5W-20, 5W-30, 10W-30)

- **Department of Defense Commercial Item Description (CID)**

- SAE J2362 (formerly CID A-A-52039<sup>2</sup>)  
(SAE 5W-30, 10W-30)

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1. Obsolete specification

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2. Replaces MIL-L-46152

## TYPICAL TEST DATA

SAE Grade	5W-20	5W-30	10W-30	10W-40	20W-50	30	40
Product Number	223393	223394	223395	223396	223397	223391	223392
MSDS Number	17808	17808	17808	17808	17808	17808	17808
API Gravity	32.9	32.6	30.6	30.9	29.0	29.5	28.9
Viscosity, Kinematic cSt at 40°C cSt at 100°C	47.5 8.0	59.4 9.7	65.3 9.7	109.7 14.0	175.2 18.5	80.8 10.3	128.0 14.0
Viscosity, Cold Crank, °C/Poise	-30/47	-30/54	-25/54	-25/64	-15/80	—	—
Viscosity Index	146	151	134	146	124	107	107
Flash Point, °C(°F)	>200(392)	>200(392)	>205(401)	>205(401)	>205(401)	>205(401)	>205(401)
Pour Point, °C(°F)	-37(-35)	-36(-33)	-37(-35)	-30(-22)	-24(-11)	-33(-27)	-30(-22)
Sulfated Ash, wt %	0.8	0.8	0.8	0.9	0.9	0.9	0.9
Base Number, ASTM D 2896	7.8	7.8	7.8	8.0	8.0	8.0	8.0
Phosphorus, wt %	0.078	0.078	0.078	0.099	0.099	0.099	0.099
Zinc, wt %	0.086	0.086	0.086	0.110	0.110	0.110	0.110

Typical test data are average values only. Minor variations which do not affect product performance are to be expected in normal manufacturing.