

# Product Information



A PRODUCT OF THE VALVOLINE COMPANY A DIVISION OF ASHLAND INC.

## VALVOLINE (ALL- CLIMATE) MOTOR OIL

**Valvoline(All Climate)** multigrade motor oils are formulated with advanced additive technology and highly refined, premium quality basestocks that protect today's engines against undesirable deposits, contamination, and viscosity and thermal breakdown under severe service conditions. They meet the performance requirements of virtually all naturally aspirated, turbocharged and supercharged gasoline fueled passenger cars and light duty trucks, including European and Japanese vehicles\*.

### The Valvoline (All Climate) Motor Oil Advantage

- **High Temperature Protection:** Resists breakdown in the most severe engine environments.
- **Low Temperature Protection:** Flows easily at low temperatures, reducing wear at start-up.
- **High Detergency:** Fights formation of sludge and varnish deposits that reduce engine life.
- **Wear Protection:** Contains anti-wear additives that dramatically reduce engine wear. Meets European and Japanese Wear requirements.
- **Turbo Approved:** Provides excellent protection to critical turbo unit components.
- **Fuel Economy:** Improves fuel economy in new and old vehicles.

Approvals/Performance Levels	Viscosity Grade/Other		
API SM/SL	SAE 5W-20	SAE 5W-30	SAE 10W-30
ILSAC GF-4 & GF-3	SAE 5W-20	SAE 5W-30	SAE 10W-30
Energy Conserving	SAE 5W-20	SAE 5W-30	SAE 10W-30
FORD WSS-M2C929-A	-----	SAE 5W-30	-----
FORD WSS-M2C930-A	SAE 5W-20	-----	-----
FORD WSS-M2C153-H	SAE 5W-20	-----	-----
FORD WSS-M2C914-A	SAE 5W-20	-----	-----
GM 6094M	-----	SAE 5W-30	SAE 10W-30
DaimlerChrysler MS-6395M	SAE 5W-20	SAE 5W-30	SAE 10W-30
DaimlerChrysler MS-10797	SAE 5W-20	-----	-----
DaimlerChrysler MS-10796	-----	SAE 5W-30	-----
DaimlerChrysler MS-10798	-----	-----	SAE 10W-30
Honda Feb. 2001 Spec.	SAE 5W-20	-----	-----

Test	SAE 5W-20	SAE 5W-30	SAE 10W-30
Vis @ 100°C (cSt)	8.36	10.46	10.67
Vis @ 40°C (cSt)	45.9	61.98	69.74
Viscosity Index	160	158	141
Spec Gravity @ 60°F	0.8557	0.8599	0.8717
Density (lbs/gal)	7.14	7.17	7.27
Total Base No.	7	7	7
Flash COC (°C)	220	220	216
Pour Point (°C) max	-36	-36	-33
CCS cP (°C)	4400(-30°C)	5000(-30°C)	6300(-25°C)
MRV TP-1 cP (°C)	16,000(-35°C)	22,000(-35°C)	26,000(-30°C)
Noack % off @ 250°C	<15.0	<15.0	<15.0
Sulfated Ash	0.80	0.80	0.80
Zinc/Phosphorus	0.083/0.076	0.083/0.076	0.083/0.076
Calcium	0.206	0.206	0.206

\* VALVOLINE (ALL-CLIMATE) MOTOR OILS are not recommended for use in diesel fueled vehicles. Use Valvoline All Fleet Plus, Valvoline Durablend, Valvoline SynPower motor oils(see owner's manual)

See operator's manual for recommended viscosity grade and API service classification.

This information only applies to products manufactured in the following location(s): USA, Canada.

Effective Date:  
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## VALVOLINE (ALL- CLIMATE) MOTOR OIL

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### The Valvoline (All Climate) Motor Oil Advantage

- **High Temperature Protection:** Resists breakdown in the most severe engine environments.
- **Low Temperature Protection:** Flows easily at low temperatures, reducing wear at start-up.
- **High Detergency:** Fights formation of sludge and varnish deposits that reduce engine life.
- **Wear Protection:** Contains anti-wear additives that dramatically reduce engine wear. Meets European and Japanese Wear requirements.
- **Turbo Approved:** Provides excellent protection to critical turbo unit components.

### Approvals/Performance Levels

API SM/SL

Meets engine & emission system protection requirements of ILSAC GF-4

Test	SAE 10W-40	SAE 20W-50
Vis @ 100°C (cSt)	14.0	18.5
Vis @ 40°C (cSt)	95.41	165.9
Viscosity Index	151	125
Spec Gravity @ 60°F	0.8699	0.8852
Density (lbs/gal)	7.25	7.38
Total Base No.	7	7
Flash COC (°C)	220	236
Pour Point (°C) max	-33	-27
CCS cP (°C)	6300(-25 <sup>0</sup> C)	8500(-15 <sup>0</sup> C)
MRV TP-1 cP (°C)	24,000(-30 <sup>0</sup> C)	27,000(-20 <sup>0</sup> C)
Noack % off @ 250°C	<15.0	<15.0
Sulfated Ash	0.80	0.80
Zinc/Phosphorus	0.083/0.076	0.083/0.076
Calcium	0.206	0.206

\* VALVOLINE (ALL-CLIMATE) MOTOR OILS are not recommended for use in diesel fueled vehicles. Use Valvoline All Fleet Plus, Valvoline Durablend, Valvoline SynPower motor oils(see owner's manual)

See operator's manual for recommended viscosity grade and API service classification.

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# Product Information

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## VALVOLINE(SUPER HPO) MOTOR OIL

Valvoline monograde motor oils are formulated with advanced additive technology and highly refined, premium quality basestocks that protect today's engines against undesirable deposits, contamination, and viscosity and thermal breakdown under severe service conditions. Valvoline SAE 30, SAE 40, and SAE 50 offer excellent protection to gasoline engines operating under high temperature and heavy-duty service(hauling trailers, boats or RVs for sustained periods)\*.

### The Valvoline (Super HPO) Motor Oil Advantage:

- **High Temperature Protection:** Resists breakdown in the most severe engine environments.
- **High Detergency:** Fights formation of sludge and varnish deposits that reduce engine life.
- **Wear Protection:** Contains anti-wear additives that dramatically reduce engine wear. Meets European and Japanese wear requirements.
- **Turbo Approved:** Provides excellent protection to critical turbo unit components

Approvals/Performance Levels	Viscosity Grade/Other				
API SM/SL	SAE 10W	SAE 20W	SAE 30	SAE 40	SAE 50
Chrysler MS-6395M	-----	-----	SAE 30	-----	-----
Other Applications	Manual transmissions, hydraulic systems, air compressors, and circulating systems where the manufacturer recommends use of a motor oil. Meets engine and emission system protection requirements of ILSAC GF-4.				

Test	SAE 10W	SAE 20W	SAE 30	SAE 40	SAE 50
Vis @ 100°C (cSt)	6.5	8.16	10.92	14.7	20.36
Vis @ 40°C (cSt)	38.7	53.3	85.9	136.2	222.1
Viscosity Index	120	125	113	108	107
Spec Gravity @ 60°F	0.8777	0.8727	0.8791	0.8861	0.8948
Density (lbs/gal)	7.30	7.27	7.33	7.39	7.46
Total Base No.	7	7	7	7	7
Flash COC (°C)	212	221	229	248	254
Pour Point (°C)	-33	-33	-27	-24	-18
CCS cP (°C), max	6800(-25C)	9200(-15C)	---	---	---
MRV TP-1 cP (°C)	10,000(-30C)	7100(-20C)	---	---	---
Sulfated Ash	0.8	0.8	0.8	0.8	0.8
Zinc/Phosphorus	0.083/0.076	0.083/0.076	0.083/0.076	0.083/0.076	0.083/0.076
Calcium	0.206	0.206	0.206	0.206	0.206

\* Valvoline Super HPO Oils are not recommended for use in diesel fuel vehicles. Use Valvoline All Fleet Plus, Valvoline Durablend, Valvoline SynPower motor oils(see owner's manual).

**See operator's manual for recommended viscosity grade and API service classification.**

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