



# FULL SYNTHETIC MOTOR OIL

## PASSENGER CAR MOTOR OIL

OEMs continue to evolve engine designs. They're getting smaller, yet producing more power and requiring thinner, lighter oils for increased fuel economy. One brand has evolved right alongside today's engines – **Volotec**. Only the most advanced motor oils meet the difficult challenges of effectively balancing performance, strength and durability.

Volotec Full Synthetic Motor Oil is made from 100% pure synthetic base oil and our most advanced additive technology, so it provides our best, longest-lasting engine protection, fuel efficiency, strength and cleanliness.

In addition, FMX® Technology creates strong, durable and high-performing oil that controls friction and keeps metal surfaces from coming into contact.

Volotec dexos1™ Gen 3 Approved Motor Oils meet or exceed GM dexos1™ Gen 3 specifications for worldwide warranty requirements for all GM automotive gasoline engines currently in use. The oils are fully licensed by GM.

So if you want longer engine life and the highest levels of protection and performance from our purest formulations, select Full Synthetic from **Volotec**.

### UNSURPASSED PROTECTION, EVEN IN THE LIGHTEST VISCOSITY

Volotec with FMX® Technology provides unsurpassed protection in every viscosity. Even our lightest viscosity oils protect better than thick oils of the past. Our advanced oil chemistry actually improves oil properties over time, retaining viscosity, friction and anti-wear benefits, in spite of severe engine temperatures.

## FULL SYNTHETIC MOTOR OIL

Volotec Motor Oils are specially engineered and formulated to provide:

### PERFORMANCE

Controls friction and wear more than 29% better than the latest API requirements.<sup>1</sup>

### STRENGTH

Provides a strong oil film to avoid metal-to-metal contact, even under extreme stress.

### DURABILITY

Stands up to the heat and shearing so it extends oil life.

<sup>1</sup> As measured against the Sequence IV Average Cam Wear Limit for API SP.

## TYPICAL PROPERTIES

Viscosity Grade		Full Syn 0W-16	Full Syn 0W-20	Full Syn 5W-20	Full Syn 5W-30	Full Syn 10W-30
Boron, wt. %	ASTM D5185	0.02	0.023	0.007	0.023	0.007
Calcium, wt. %	ASTM D5185	0.099	0.135	0.119	0.135	0.119
Cold Cranking						
Simulator at (°C), cP	ASTM D5293	5463 (-30)	5800 (-35)	3518 (-30)	4400 (-30)	4000 (-25)
Color	ASTM D1500	3	3	2.5	3	2.5
Flash Point °C	ASTM D92	226	226	228	227	225
Flash Point °F	ASTM D92	439	439	442	441	437

Foam Seq. III (Tendency/Stability) mL	ASTM D892 (Opt. A)	0/0	0/0	0/0	0/0	0/0
Foam Seq. II (Tendency/Stability) mL	ASTM D892 (Opt. A)	0/0	5/0	0/0	10/0	0/0
Foam Seq. I (Tendency/Stability) mL	ASTM D892 (Opt. A)	0/0	0/0	0/0	0/0	0/0
Gravity, °API	ASTM D287	35.44	35.66	35.62	35.82	34.91
High Temperature Foaming, static foam	ASTM D6082 (Opt A)	20/0	20/0	30/0	15/0	20/0
High Temperature / High Shear Vis at 150°C, cP	ASTM D5481	2.32	2.7	2.63	3.2	3.18
Magnesium, wt. %	ASTM D5185	0.059	0.059	0.038	0.059	0.038
Molybdenum, wt. %	ASTM D5185	0.0079	0.0079	0.004	0.0079	0.004
Nitrogen, wt. %	ASTM D4629	0.087	0.104	0.081	0.104	0.081
Noack Volatility, % loss	ASTM D6375	14.3	13	10.3	12	5.2
Phosphorus, wt. %	ASTM D5185	0.076	0.076	0.064	0.076	0.064
Pour Point °C (°F)	ASTM D5950	-45°C (-49°F)	-45°C (-49°F)	-45°C (-49°F)	-45°C (-49°F)	-42°C (-44°F)
Pumping Viscosity at (°C), cP	ASTM D4684	15,000 (-40)	21,000 (-40)	10,500 (-35)	15,000 (-35)	21,300(-30)
Shear Stability, Final Viscosity in cSt	ASTM D6278	6.6	7.5	7.565	9.4	9.32
Specific Gravity @ 60°F (15.6°C)	ASTM D4052	0.8426	0.8465	0.8467	0.8457	0.8503
Sulfated Ash, wt. %	ASTM D874	0.9	0.9	0.712	0.9	0.712
Sulfur, wt. %	ASTM D4951	0.3	0.3	0.235	0.3	0.235
TBN, mgKOH/g	ASTM D2896	7.0	7.9	7.0	7.9	7.0
Viscosity @ 100°C cSt	ASTM D445	7.548	8.475	8.33	10.91	10.28
Viscosity @ 40°C cSt	ASTM D445	38.76	44.59	44.9	62.09	62.86
Viscosity Index	ASTM D2270	167	170	164	169	151
Zinc, wt. %	ASTM D5185	0.085	0.085	0.07	0.085	0.07
Copper Strip Corrosion (3 hrs@100°C)	ASTM D130	-	-	1A	-	-

## INDUSTRY/OEM APPROVALS

Title	Full Syn 0W-16	Full Syn 0W-20	Full Syn 5W-20	Full Syn 5W-30	Full Syn 10W-30
API SN	Meets Requirements	Meets Requirements	Meets Requirements	Meets Requirements	Meets Requirements
API SN Plus	Meets Requirements	Meets Requirements	Meets Requirements	Meets Requirements	Meets Requirements
API SP	Approved	Approved	Approved	Approved	Approved
ILSAC GF-6B	Approved	-	-	-	-
API SJ, SH, SG, SF	-	Meets Requirements	Meets Requirements	Meets Requirements	Meets Requirements
API SL	-	Meets Requirements	Meets Requirements	Meets Requirements	Meets Requirements
API SM	-	Meets Requirements	Meets Requirements	Meets Requirements	Meets Requirements
Chrysler MS-6395	-	Meets Requirements	Meets Requirements	Meets Requirements	Meets Requirements
dexos1® Gen3	-	Approved	-	Approved	-
Ford WSS M2C947-A, WSS-M2C947-B1	-	Meets Requirements	-	-	-
Ford WSS M2C962-A1	-	Meets Requirements	-	-	-
GM 4718M	-	Meets Requirements	-	Meets Requirements	Meets Requirements
GM 6094M	-	Meets Requirements	Meets Requirements	Meets Requirements	Meets Requirements
ILSAC GF-4	-	Meets Requirements	Meets Requirements	Meets Requirements	Meets Requirements
ILSAC GF-5	-	Meets Requirements	Meets Requirements	Meets Requirements	Approved
ILSAC GF-6A	-	Approved	Approved	Approved	-
Chrysler MS-10797	-	-	Meets Requirements	-	-
Ford WSS M2C945-B1, M2C945-A, M2C930-A, M2C153	-	-	Meets Requirements	-	-
Ford WSS M2C960-A1	-	-	Meets Requirements	-	-
Ford WSS M2C946-B1, M2C946-A, M2C929-A	-	-	-	Meets Requirements	-

Information accurate as of September 9, 2024