

MOTUL**HYBRID 0W-20****FUEL
ECO****Fuel Economy Gasoline engine lubricant
100% Synthetic****TYPE OF USE**

100% Synthetic "Fuel Economy" engine oil specially designed for Hybrid Electric Vehicles (H.E.V) and Plug-in Hybrid Electric Vehicles (P.H.E.V) fitted with recent gasoline engines, turbocharged or naturally aspirated, direct or indirect injection, designed to use SAE 0W-20 oil with low friction and very low HTHS (High Temperature High Shear) viscosity (≥ 2.6 mPa.s).

Suitable also for battery electric vehicles (B.E.V) fitted with thermal gasoline engine used as Range Extender.

Suitable for modern gasoline engines requiring a viscosity grade SAE 0W-20 lubricant or a "Fuel Economy" lubricant in viscosity grade 20: Standards API SN, API SN-RC and/or ILSAC GF-5.

Compatible with catalytic converters.

This type of oil may be unsuitable for use in some engines. Refer to the owner manual if in doubt.

PERFORMANCES

STANDARDS	API SERVICE SN-RC ILSAC GF-5
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RECOMMENDATIONS	HONDA, NISSAN, TOYOTA
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The API SN standard is fully backward compatible over API SM requirements and all former API standards.

API SN lubricants provide outstanding oxidation resistance, better protection against deposits, better engine cleanliness, better anti-wear protection and enhanced performance at cold temperature during the whole oil life duration.

The "RC - Resource Conserving" designation in addition to the API level "Sx" applies especially to "Energy Saver" lubricant types for gasoline engines. It is the guarantee of fuel savings when used on vehicle fleets.

Based on the API SN specification, the ILSAC GF-5 standard is even more severe especially on the energy saving criteria.

The requirements on the low viscosity "Fuel Economy" side of the lubricant, but also extended drain intervals, clean pistons/rings, seals compatibility and reduced content of Phosphorus for after treatment systems compatibility are enhanced. The ILSAC GF-5

specification ensures perfect engine protection when gasoline containing up to 85% Ethanol is used (E85).

Viscosity grade SAE 0W-20 minimizes lubricant hydrodynamic friction, allows fuel economy benefits especially when the oil is cold.

This low viscosity grade also improves oil flow at start up, delivers faster oil pressure build up, faster rev raisings and allows to reach operating temperature faster.

We retain the right to modify the general characteristics of our products in order to offer to our customers the latest technical development.

Product specifications are definitive from the order which is subject to our general conditions of sale and warranty. Made in FRANCE

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MOTUL HYBRID 0W-20 is specially formulated to meet the specific needs of hybrid electric vehicles, such as HEV, PHEV and BEV with Range Extender, where multiples unexpected stops and starts of the Gasoline engine are involved during the different operating phases of the hybrid vehicle. This particular mode of operation of the internal combustion engine on a hybrid vehicle generates very specific constraints for the lubricant, and in this, MOTUL HYBRID 0W-20 fully meets all these requirements.

RECOMMENDATIONS

Drain interval: according to manufacturers' recommendations and tune to your own use.

MOTUL HYBRID 0W-20 can be mixed with synthetic or mineral oils.

Before use always refer to the owner manual of the vehicle.

PROPERTIES

Viscosity grade	SAE J 300	0W-20
Density at 20°C (68°F)	ASTM D1298	0.846
Viscosity at 40°C (104°F)	ASTM D445	45.4 mm ² /s
Viscosity at 100°C (212°F)	ASTM D445	8.5 mm ² /s
HTHS viscosity at 150°C (302°F)	ASTM D4741	2.6 mPa.s
Viscosity Index	ASTM D2270	168.0
Pour point	ASTM D97	-36.0 °C / -33.0 °F
Flash point	ASTM D92	230.0 °C / 446.0 °F
Sulfated Ash	ASTM D874	0.89 % weight
TBN	ASTM D2896	8.5 mg KOH/g