

HYBRID 0W-16



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-16 oil with low friction and very low HTHS (High Temperature High Shear) viscosity (≥ 2.3 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-16 lubricant or a "Fuel Economy" lubricant in viscosity grade 16: Standards API SP and/or ILSAC GF-6B.

Compatible with catalytic converters.

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

PERFORMANCE

STANDARDS

API SERVICE SP
ILSAC GF-6B

RECOMMENDATIONS

HONDA Hybrid gasoline engines
SUZUKI Hybrid gasoline engines
TOYOTA Hybrid gasoline engines
...

The API SP standard is fully backward compatible over API SN requirements and all former API standards. The API SP specification is more demanding on the energy saving requirements.

API SP lubricants provide outstanding oxidation resistance, better anti-deposits protection, better engine cleanliness, anti-wear protection and enhanced performance at cold temperature for Fuel Economy savings during the whole oil life span.

Besides being backward compatible, compare to API SN and API SN Plus, the API SP standard provides higher performance and especially adds more protection against LSPI phenomenon for downsized direct injection turbocharged gasoline engines.

Based on the API SP specification, the ILSAC GF-6B standard for viscosity grade 16 lubricants is even more severe compare to ILSAC GF-5 especially on the Fuel Economy benefits performance. The requirements on the low viscosity "Fuel Economy" side of the lubricant, but also extended drain intervals, pistons/rings cleanliness, seals compatibility and reduced content of Phosphorus for after treatment systems compatibility are enhanced. The ILSAC GF-6B specification also ensures perfect engine protection when gasoline containing up to 85% Ethanol is used (E85).

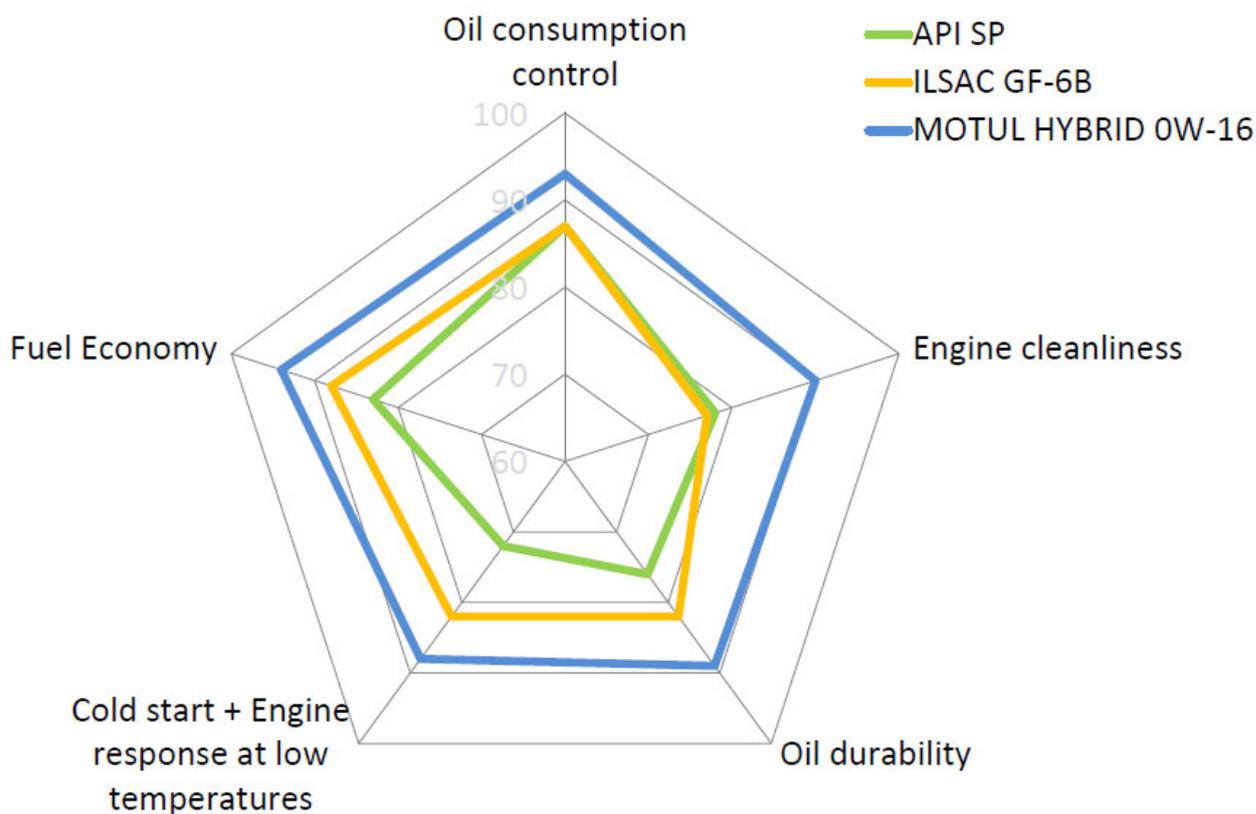
Viscosity grade SAE 0W-16 minimizes seriously lubricant hydrodynamic friction, allows significant fuel economy benefits especially when the oil is cold.

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

MOTUL HYBRID 0W-16 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-16 fully meets all these requirements.

Environment friendly, this type of oil allows fuel consumption reduction and therefore minimizes greenhouse gases (CO₂) emissions.

MOTUL HYBRID 0W16 demonstrates all these qualities on all key criteria and requirements when compared to API SP and ILSAC GF-6B:



RECOMMENDATION

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

MOTUL HYBRID 0W-16 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-16
Density at 20°C (68°F)	ASTM D1298	0.842
Viscosity at 40°C (104°F)	ASTM D445	37.3 mm ² /s
Viscosity at 100°C (212°F)	ASTM D445	7.1 mm ² /s
HTHS viscosity at 150°C (302°F)	ASTM D4741	2.3 mPa.s
Viscosity index	ASTM D2270	160
Pour point	ASTM D97	-42°C / -44°F
Flash point	ASTM D92	226°C / 439°F
Sulfated ash	ASTM D874	0.86% weight
TBN	ASTM D2896	8.5 mg KOH/g

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 not definitive from the order which is subject to our general conditions of sale and warranty.

MOTUL - 119 Bd Félix Faure - 93303 Aubervilliers Cedex - BP 94 - FRANCE. Tel: 33 1 48 11 70 00 - Fax: 33 1 48 33 28 79 - Web Site: www.motul.com