

# HYBRID 0W-20



**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 ( $\geq 2.6$  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.

## PERFORMANCE

### STANDARDS

API SERVICES **SN-RC**  
ILSAC **GF-5**

### RECOMMENDATIONS

HONDA Hybrid gasoline engines  
NISSAN Hybrid gasoline engines  
TOYOTA Hybrid gasoline engines  
...

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).

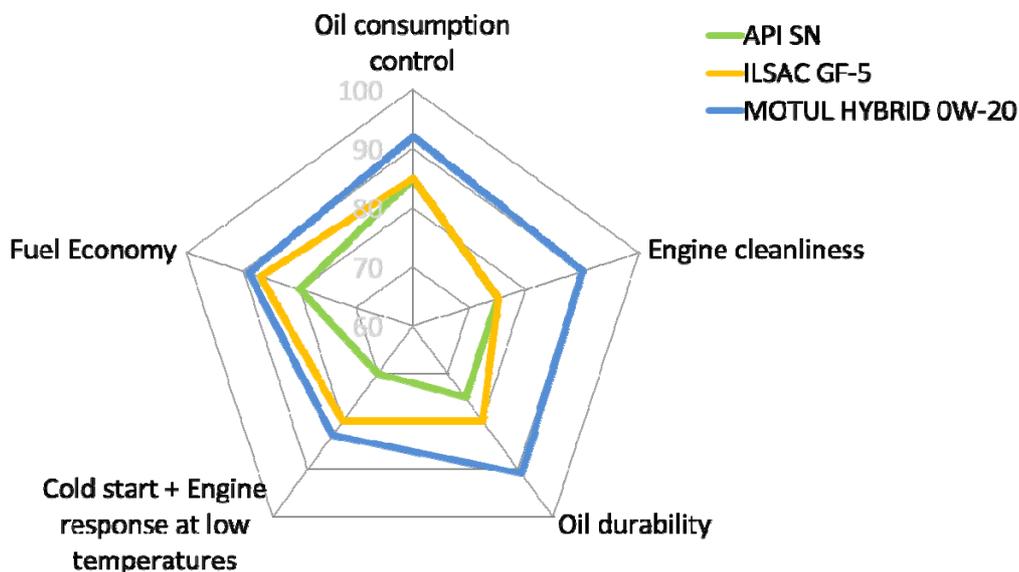
Viscosity grade SAE 0W-20 minimizes lubricant hydrodynamic friction, allows fuel economy benefits especially when the oil is cold.

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.

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.

**Environment friendly, this type of oil allows fuel consumption reduction and therefore minimizes greenhouse gases (CO<sub>2</sub>) emissions.**

MOTUL HYBRID 0W-20 demonstrates all these qualities on all key criteria and requirements when compared to API SN and ILSAC GF-5:



## **RECOMMENDATION**

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	<b>0W-20</b>
Density at 20°C (68°F)	ASTM D1298	0.846
Viscosity at 40°C (104°F)	ASTM D445	45.4 mm <sup>2</sup> /s
Viscosity at 100°C (212°F)	ASTM D445	8.5 mm <sup>2</sup> /s
HTHS viscosity at 150°C (302°F)	ASTM D4741	2.6 mPa.s
Viscosity index	ASTM D2270	168
Pour point	ASTM D97	-36°C / -33°F
Flash point	ASTM D92	230°C / 446°F
Sulfated ash	ASTM D874	0.89% weight
TBN	ASTM D2896	8.5 mg KOH/g