



# NGEN HYBRID 0W-16



**Eco designed Fuel Economy motor oil for Gasoline engines**

**Sustainable Synthetic blend**

## TYPE OF USE

Innovative and durable synthetic engine lubricant 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 low HTHS (High Temperature High Shear) viscosity ( $\geq 2.3$  mPa.s).

MOTUL NGEN HYBRID 0W-16 is especially formulated for the technical challenges imposed by Gasoline Hybrid cars, such as fuel dilution, water emulsion, high numbers of stop/start events and lower oil temperature conditions. This state-of-the-art formulation is part of a whole new Motul sustainable concept as it contains premium regenerated base oils and is filled in a 50% recycled and 100% recyclable Motul can, allowing Motul to lower its environmental footprint and favorise the circular economy.

MOTUL NGEN is the common naming to qualify the sustainable ranges at Motul using different technologies into the formulations and packaging to reduce its carbon footprint.

This dedicated formula can also be used for gasoline engines requiring a viscosity grade SAE 0W-16 lubricant or a "Fuel Economy" lubricant in viscosity grade 16, with API SQ-RC, API SQ and/or ILSAC GF-7B standards.

MOTUL NGEN HYBRID 0W-16 is also suitable for battery electric vehicles (B.E.V) fitted with thermal gasoline engine used as Range Extender.

Compatible with catalytic converters and particulate filters.

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

## PERFORMANCE

STANDARDS	API SQ performance ILSAC GF-7B
RECOMMENDATIONS	HONDA Hybrid gasoline engines SUZUKI Hybrid gasoline engines TOYOTA Hybrid gasoline engines ...

The API SQ standard is fully backward compatible over API SP requirements and all former API standards. The API SQ-RC "Resource Conserving" specification is even more demanding on the energy saving requirements. API SQ lubricants provide outstanding oxidation resistance, better anti-deposits protection, better engine cleanliness, antiwear protection and enhanced performance at cold temperature for Fuel Economy savings during the whole oil life span.

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

Based on the API SQ specification, the ILSAC GF-7B standard for viscosity grade 16 lubricants is even more severe compared to ILSAC GF-6B 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, and reduced timing chain wear. The ILSAC GF-7B 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.

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.

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03/25

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, regardless of engine operating mode.

MOTUL NGEN HYBRID 0W-16 is specially formulated to meet the specific challenges of hybrid electric vehicles, such as HEV, PHEV and BEV with Range Extender, on which numerous and 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 such as fuel dilution, water emulsion, high numbers of stop/start events and working at lower oil temperature conditions which generate increased oxidation, and for that purpose, MOTUL NGEN HYBRID 0W-16 fully meets all these demanding requirements.

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

## **RECOMMENDATION**

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

MOTUL NGEN 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	<b>0W-16</b>
Density at 20°C (68°F)	ASTM D4052	0.842
Viscosity at 40°C (104°F)	ASTM D445	39.2 mm <sup>2</sup> /s
Viscosity at 100°C (212°F)	ASTM D445	7.6 mm <sup>2</sup> /s
Viscosity index	ASTM D2270	164
TBN	ASTM D2896	7.1 mg KOH/g