

NGEN HYBRID 0W-20



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-20 oil with low friction and low HTHS (High Temperature High Shear) viscosity (≥ 2.6 mPa.s).

MOTUL NGEN HYBRID 0W-20 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 formulation and packaging to reduce its carbon footprint.

This dedicated formula can also be used for gasoline engines requiring a viscosity grade SAE 0W-20 lubricant or a "Fuel Economy" lubricant in viscosity grade 20, with API SQ-RC, API SQ and/or ILSAC GF-7A standards.

MOTUL NGEN HYBRID 0W-20 is 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-7A
RECOMMENDATIONS	HONDA Hybrid gasoline engines KIA Hybrid gasoline engines NISSAN 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 antideposits 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-7A standard for viscosity grade 20 lubricants is even more severe compared to ILSAC GF-6A 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-7A specification also 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, regardless of engine operating mode.

MOTUL NGEN HYBRID 0W-20 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 lower oil temperature working conditions leading to increased oxidation, and for that purpose, MOTUL NGEN HYBRID 0W-20 fully meets all these demanding requirements.

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

#### RECOMMENDATION

Drain interval: according to manufacturers' recommendations and tune to your own use. MOTUL NGEN 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 Density at 20°C (68°F) Viscosity at 40°C (104°F) Viscosity at 100°C (212°F) Viscosity index TBN SAE J 300 ASTM D4052 ASTM D445 ASTM D445 ASTM D2270 ASTM D2896 **0W-20** 0.842 46.8 mm²/s 8.7 mm²/s 167 7.2 mg KOH/g