

**TYPE OF USE**

High performance Synthese-Technologie lubricant approved by many car manufacturers.

Specially designed for last generation cars, powered by Gasoline or Diesel engines, naturally aspirated or turbocharged, indirect or direct injection, Euro 4, 5 or 6 emission regulation compliant, requiring an ACEA C3 engine oil i.e. high HTHS (> 3.5 mPa.s) viscosity and "Mid SAPS" with reduced content of Sulfated Ash ( $\leq 0.8\%$ ), Phosphorus ( $0.07 \leq x \leq 0.09\%$ ) and Sulfur ( $\leq 0.3\%$ ).

Compatible with catalytic converters and Diesel Particulate Filters (DPF).

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

**PERFORMANCES**

STANDARDS	ACEA C3 API SERVICE SP
APPROVALS	BMW LL-04 MERCEDES-BENZ MB-Approval 229.52 (rückwärtskompatibel zu MB-Freigabe 229.31 und MB-Freigabe 229.51) MERCEDES-BENZ MB-Approval 226.5 RENAULT RN0710 - RN0700 under n° RN0710-19-62 / under n° RN0700-19-75
PERFORMANCES	OPEL OV 040 1547 - D40, OPEL OV 040 1547 - G40, VAUXHALL OV 040 1547 - D40, VAUXHALL OV 040 1547 - G40
RECOMMENDATIONS	HONDA, HYUNDAI, KIA, MITSUBISHI, NISSAN, SSANGYONG, SUZUKI

Engines compliant with Euro 4, 5 and 6 emission regulations are fitted with sensitive exhaust gas after treatment systems. Indeed, Sulfur and Phosphorus inhibit catalytic converters operation leading to inefficient exhaust gas treatment; and Sulfated Ashes clog DPFs leading to shorten regenerating cycle, quick oil aging, higher fuel consumption and engine power loss.

The ACEA C3 standard requests from the lubricant significant oil film resistance and low emission performance for powerful engines: MOTUL 8100 X-clean gen2 5W-40 has synthetic base stocks and dedicated SAPS levels that generates outstanding oil film resistance, reduces friction in the engine and provides after treatment devices compatibility. MOTUL

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

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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8100 X-clean gen2 5W-40 brings high lubricating properties such as wear protection and high temperature resistance for better controlled oil consumption. This type of lubricant achieves extended drain intervals managed by vehicles on-board computer.

The API SP standard is fully backward compatible over API SN standard and all former API standards.

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 protection against LSPI for downsized direct injection turbocharged gasoline engines.

Numerous OEMs such as KIA / HYUNDAI, HONDA, MITSUBISHI, NISSAN, SUZUKI, SSANGYONG,... recommend an ACEA C3 lubricant for most of their vehicles especially Diesels with DPF.

The BMW Long Life-04 specification imposes severe constraints to the lubricant particularly due to Valvetronic and after treatment systems compatibility. It covers all BMW engines from 2004 and also all BMW engines before 2004 as BMW LL-04 covers all the previous BMW specifications such as BMW LL-98 and BMW LL-01. ATTENTION: BMW LL-04 product can be used for gasoline engines only in European Union countries, Switzerland, Norway and Liechtenstein.

Outside those countries, a BMW LL-01 lubricant such as MOTUL 8100 X-cess gen2 5W-40 is required. Refer to BMW recommendations when in doubt.

MOTUL 8100 X-clean gen2 5W-40 fulfils all the specifications of BMW Long Life-04 standard of the BMW Group for BMW, MINI and ROLLS-ROYCE vehicles with no exceptions i.e. for models before 2019 and after 2019. For models up to 2019, MOTUL 8100 X-clean 5W-40 can also be used.

MERCEDES has developed MB 229.52 standard for all “BlueTEC” Diesel engines fitted with SCR (Selective Catalyst Reduction) systems using AdBlue® additive or so-called “diesel exhaust fluid”.

MB 229.52 specification is fully backward compatible with MB 229.51 and MB 229.31 specifications for all Mercedes Diesel engines with or without DPF and some Gasoline engines.

MB 229.52 standard also requires improved cold flow properties to allow fuel consumption reduction and therefore reduces greenhouse gases (CO2) emissions.

RENAULT has developed RN0700 and RN0710 standards for oils able to endure the most severe thermal constrains along with modern after treatment systems compatibility.

The Renault RN0700 standard applies to all Naturally Aspirated Gasoline engines (except Renault Sport) of RENAULT Group (Renault, Dacia, Samsung).

The RN0700 specification applies also to all RENAULT Diesel cars fitted with 1.5L dCi engines without DPF (Diesel Particulate Filter) having less than 100 hp output and 20 000 km or 1-year oil drain interval.

The Renault RN0710 standard applies to all Turbocharged Gasoline, Renault Sport and Diesel without DPF engines of RENAULT Group (Renault, Dacia, Samsung).

The RN0710 specification does not apply to RENAULT Diesel cars fitted with 1.5L dCi engines without DPF having less than 100 hp output and 20 000 km or 1-year oil drain interval which specifically require a RN0700 lubricant. For the 2,2L dCi with DPF, use only an approved RN0710 lubricant, not a RN0720.

The OV 040 1547 - G40 specification replaces the GM dexos2™ standard for legacy Opel and Vauxhall vehicles using non-PSA platforms and fitted with Gasoline engines requiring a 5W-40 viscosity grade.

The OV 040 1547 - D40 specification replaces the GM dexos2™ standard for legacy Opel and Vauxhall vehicles using non-PSA platforms and fitted with Diesel engines requiring a 5W-40 viscosity grade.

**RECOMMENDATIONS**

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

Do not mix with lubricants not ACEA C3 compliant.

Before use always refer to the owner's manual or handbook of the vehicle.

**PROPERTIES**

Viscosity grade	SAE J 300	5W-40
Density at 20°C (68°F)	ASTM D1298	0.847
Viscosity at 40°C (104°F)	ASTM D445	76.3 mm <sup>2</sup> /s
Viscosity at 100°C (212°F)	ASTM D445	13.3 mm <sup>2</sup> /s
HTHS viscosity at 150°C (302°F)	ASTM D4741	3.9 mPa.s
Viscosity Index	ASTM D2270	180.0
Pour point	ASTM D97	-45.0 °C / -49.0 °F
Sulfated Ash	ASTM D874	% weight 0.77
TBN	ASTM D2896	9.4 mg KOH/g
Flash point	ASTM D92	232.0 °C / 450.0 °F

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