

**Gasoline and Diesel engine oil
Technosynthese®****TYPE OF USE**

Advanced synthetic Technosynthese® lubricant for High Performance and High Protection.

Recommended for MERCEDES and VAG (Volkswagen, Audi, Skoda et Seat), as well as BMW, CHRYSLER, FORD, FIAT, PORSCHE, PSA (Peugeot, Citroën, DS), and RENAULT.

Specifically designed for powerful and recent cars fitted with Gasoline and Diesel engines, naturally aspirated or turbo-charged, indirect or direct injection.

Suitable for all type of fuels: leaded or unleaded Gasoline, Ethanol, LPG, Diesel and biofuels.

Compatible for catalytic converters (CAT).

PERFORMANCES

The ACEA B4 performance requires an outstanding detergent/dispersant power and a better viscosity increase resistance due to soot produced by Direct Injection Diesel engines (except VW unit injector engines that require a VW 505 01 product such as MOTUL SPECIFIC 505 01 505 00 5W-40, 8100 XCLEAN 5W-40 or 8100 X-CLEAN FE 5W-30).

Specifications VW 505 00 and especially VW 502 00 require outstanding detergent/dispersant power, high oil film resistance and better viscosity increase resistance (due to soot) in order to cover many VAG (VW, Audi, Skoda, Seat) Gasoline engines and some Diesel engines.

The MERCEDES MB 229.5 standard is more stringent than 229.3 in terms of ageing and oil film resistance (extended drain interval: on-board computer), detergent/dispersant power (ACEA B4) and requests fuel economy performance: 1.7% fuel economy improvement versus a 15W-40 reference.

The specification MB 229.5 applies to all MERCEDES Gasoline engines, including AMG (in 5W-40 viscosity grade) except SLR, and to all MERCEDES Diesel without DPF engines.

The BMW Long Life-01 specification imposes severe constraints to the lubricant particularly due to the Valvetronic system. It covers all BMW engines from 2001 to 2004 and also all the previous BMW specifications such as BMW LL-98. From 2004 BMW vehicles require a BMW LL-04 product such as Specific LL-04 5W-40, 8100 X-clean 5W-40, 8100 X-clean EFE 5W-30 or 8100 X-clean+ 5W-30.

BMW LL-01 standard covers also all Gasoline engines running only outside European Union countries, Switzerland, Norway and Liechtenstein. Refer to BMW recommendations when in doubt.

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The CHRYSLER MS 12991 / MS 10725 / MS 10896 performance levels require engine oil to be synthetic while combining the API SM specification to perfectly lubricate some Gasoline and Diesel engines of CHRYSLER, DODGE, DODGE RAM and JEEP vehicles.

The FIAT 9.55535-H2, M2, N2 and Z2 performance levels impose the engine oil to combine both ACEA A3/B4 standard and 5W-40 viscosity grade in order to perfectly lubricate most of the Gasoline and Diesel engines of FIAT, ALFA-ROMEO, and LANCIA produced before July 2007, especially Twin Turbo Diesel engines (FIAT 9.55535-Z2).

PSA has developed B71 2296 standard in order for the oils to provide high thermal stability and insures an outstanding resistance at high temperatures to avoid black sludge and viscosity increase that soot, coming from combustion residues, may create.

PSA B71 2296 specification is suitable for some PSA Gasoline and Diesel engines requiring this standard: Always refer to the recommendation of your service booklet.

The Porsche A40 standard requires extreme high shear resistance from the lubricant. This specification applies to all PORSCHE engines, except Cayenne V6 and Diesel versions (for these specific engines, use an approved Porsche C30 lubricant such as MOTUL 8100 X-clean+ 5W-30).

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.



MOTUL 6100 SYN-ERGY 5W-40

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RECOMMENDATIONS

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

MOTUL 6100 SYN-ergy 5W-40 can be mixed with synthetic or mineral oils.

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

PROPERTIES

Viscosity grade	SAE J 300	5W-40
Density at 20°C (68°F)	ASTM D1298	0.853
Viscosity at 40°C (104°F)	ASTM D445	86.1 mm ² /s
Viscosity at 100°C (212°F)	ASTM D445	14.6 mm ² /s
HTHS viscosity at 150°C (302°F)	ASTM D4741	3.7 mPa.s
Viscosity Index	ASTM D2270	170.0
Pour point	ASTM D97	-34.0 °C / -29.0 °F
Sulfated Ash	ASTM D874	1.10 % weight
TBN	ASTM D2896	10.2 mg KOH/g
Flash point	ASTM D92	230.0 °C / 446.0 °F

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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MOTUL 6100 SYN-ENERGY 5W-40

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STANDARDS	
ACEA	A3/B4
API	SERVICE SN
MERCEDES-BENZ	MB-Approval 229.5
OE PERFORMANCES	
BMW	LL-01
CHRYSLER	MS 10725, MS 10896, MS 12991
FIAT	9.55535-H2, 9.55535-M2, 9.55535-N2, 9.55535-Z2
PORSCHE	A40
RENAULT	RN0710 - RN0700
VW	502 00 505 00
PRODUCTS	
PSA Groupe	PSA B71 2296

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