

Gasoline & Diesel lubricant - EURO IV and V

100% Synthetic

TYPE OF USE

High performance 100% synthetic lubricant approved by many car manufacturers. Specially designed for last generation cars, powered by turbo Diesel direct injection or Gasoline engines, EURO IV or EURO V 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 suphated ash ($\leq 0.8\%$), phosphorus (0.07 $\leq x \leq 0.09\%$) and sulphur ($\leq 0.3\%$).

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
PERFORMANCES	API SM / CF
APPROVALS	BMW Long Life-04
	MB-Approval 229.51
	VW 502 00 - 505 00

RECOMMENDATIONS FIAT, HYUNDAI / KIA, NISSAN, RENAULT, SSANGYONG, SUZUKI ...

Engines compliant with EURO IV and EURO V emission regulation 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 5W-30 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 8100 X-clean 5W-30 brings high lubricating properties such as wear protection and high temperature resistance for better controlled oil consumption. ACEA C3 lubricants achieve extended drain intervals managed by vehicles on-board computer.

Numerous OEMs such as FIAT, HYUNDAI / KIA, NISSAN, RENAULT, SSANGYONG, SUZUKI,... 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 <u>only</u> in European Union countries, Switzerland, Norway and Liechtenstein. Outside those countries, a BMW LL-01 lubricant such as MOTUL 8100 X-cess 5W-40 is required. Refer to BMW recommendation.

The MB 229.51 requires among many other severe constrains from the lubricant a reduced content of Sulfted Ash, Phosphorus and Sulphur in order to be compatible with MERCEDES exhaust gas after treatment systems. The specification MB 229.51 applies to some MERCEDES Gasoline engines, and to all MERCEDES Diesel engines, with or without DPF.

Specifications VW 502 00 and VW 505 00 require outstanding detergent/dispersant power, high oil film resistance and better viscosity increase resistance due to soot in order to cover many Gasoline engines and most of Direct Injection Diesel engines, except unit injector systems which require an approved VW 505 01 lubricant such as MOTUL Specific 505 01 505 00 502 00 5W-40 or MOTUL 8100 X-clean 5W-40. Attention, do not use MOTUL 8100 X-clean 5W-30 when a VW 504 00 or VW 507 00 lubricant is required, in that case use MOTUL Specific 504 00 507 00 5W-30 or MOTUL 8100 X-clean+5W-30.

RECOMENDATIONS

Drain interval: according to manufacturers' recommendations and tune to your own use. Do not mix with lubricants not ACEA C3 compliant. Before use always refer to the owner manual or handbook of the vehicle.

PROPERTIES

Viscosity grade Density at 20°C (68°F) Viscosity at 40°C (104°F) Viscosity at 100°C (212°F) HTHS viscosity at 150°C (302°F) Viscosity index Pour point Flash point Sulfated ash TBN SAE J 300 ASTM D1298 ASTM D445 ASTM D445 ASTM D4741 ASTM D2270 ASTM D97 ASTM D92 ASTM D874 ASTM D2896 **5W-30** 0.847 70.8 mm²/s 12.0 mm²/s 3.5 mPa.s 166 -36°C / -32.8°F 230°C / 446°F 0.79% weight 7.4 mg KOH/g