

TYPE OF USE

High performance 100% Synthetic lubricant specially designed for latest generation of Diesel and Gasoline engines, Euro 4, Euro 5 or Euro 6 emission regulation compliant, requiring an engine oil with 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).

Particularly suitable for the latest generation of BMW, MERCEDES, PORSCHE and VAG (VW, AUDI, SEAT, SKODA) cars.

Suitable also for any type of Diesel or Gasoline engines calling for ACEA C3 lubricant.

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

PERFORMANCES

STANDARDS	ACEA C3
APPROVALS	BMW LL-04 MERCEDES-BENZ MB-Approval 229.51
PERFORMANCES	PORSCHE C30, VW 504 00 507 00

Engines compliant with Euro 4, Euro 5 and Euro 6 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 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 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 Sulfated Ash, Phosphorus and Sulphur in order to be compatible with MERCEDES exhaust gas after treatment systems. These oils can reach flexible drain intervals managed by computer on board due to outstanding shear resistance properties. The specification MB 229.51 applies to some MERCEDES Gasoline engines, and to all MERCEDES Diesel engines, with or without DPF.

PORSCHE has introduced its C30 norm to guarantee the perfect lubrication of all their Diesel engines and V6 Gasoline engines (Porsche Cayenne). Approved "PORSCHE C30" lubricant fulfills all these highly demanding requests especially regarding oil film resistance.

VOLKSWAGEN for their VW 504 00 and VW 507 00 standards requires from the lubricant to be fully compatible with their after treatment systems such as catalytic converters and DPFs to ensure the highest durability of most Gasoline and Diesel engines of VW, AUDI, SEAT and SKODA vehicles.

MOTUL 8100 X-clean+ 5W-30 fully answer all those various requests that BMW, MERCEDES, PORSCHE and VW have developed for their lubricant standards through engine oils with high HTHS (> 3.5 mPa.s), reduced Sulphated Ash, Phosphorus and Sulfur content (Low SAPS), suitable for use with modern exhaust gas after treatment systems.

RECOMMENDATIONS

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

Can be mixed with synthetic and mineral oils.

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

PROPERTIES

Viscosity grade	SAE J 300	5W-30
Density at 20°C (68°F)	ASTM D1298	0.847
Viscosity at 40°C (104°F)	ASTM D445	71.7 mm ² /s
Viscosity at 100°C (212°F)	ASTM D445	11.7 mm ² /s
HTHS viscosity at 150°C (302°F)	ASTM D4741	3.6 mPa.s
Viscosity Index	ASTM D2270	158.0
Pour point	ASTM D97	-39.0 °C / -38.0 °F
Flash point	ASTM D92	242.0 °C / 468.0 °F
Sulfated Ash	ASTM D874	0.61 % weight
TBN	ASTM D2896	6.0 mg KOH/g