



8100 XCL FE 5W3 DE23



Gasoline & Diesel lubricant
High Protection & Fuel Economy
Synthese-Technologie

TYPE OF USE

Advanced Synthese-Technologie lubricant that provides at the same time High Protection and Fuel Economy. Approved by numerous OEMs such as MERCEDES, STELLANTIS (PSA – Peugeot, Citroën and DS) and RENAULT for its FE - Fuel Economy - property.

Specially designed for the latest generation cars, powered by Gasoline and Diesel engines, naturally aspirated or turbo-charged, direct or indirect injection compliant with Euro 4, 5 or 6 emission regulation and 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 ($\leq 0.3\%$), or an ACEA C2 engine oil i.e. a low friction, low HTHS (≥ 2.9 mPa.s) viscosity and "Mid SAPS" oil with reduced content of Sulfated Ash ($\leq 0.8\%$), Phosphorus ($\leq 0.09\%$) and Sulfur ($\leq 0.3\%$).

Suitable when a "Fuel Economy" lubricant is required: ACEA C2 standard.

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

May be unsuitable for use in some engines. Always refer to the owner's manual if in doubt.

PERFORMANCES

STANDARDS	ACEA C2, C3 API SERVICE SP
APPROVALS	MERCEDES-BENZ MB-Approval 229.52 PSA Groupe PSA B71 2290 RENAULT RN17
PERFORMANCES	FIAT 9.55535-S1, FIAT 9.55535-S3
RECOMMENDATIONS	HONDA, HYUNDAI, KIA, MITSUBISHI, NISSAN, SSANGYONG, SUBARU, SUZUKI, TOYOTA

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 converter operation leading to inefficient exhaust gas treatment. Also, Sulfated Ashes clog DPFs leading to shorten regenerating cycles, quick oil aging, higher fuel consumption and engine power loss.

The ACEA C3 standard requires from the lubricant significant oil film resistance and low emission performance during use in powerful engines. The ACEA C2 standard requires significant reduction of friction to ensure gains in energy savings, and

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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therefore fuel economy benefits.

MOTUL 8100 X-CLEAN FE 5W-30 has synthetic base stocks coupled with specific friction modifier molecules and dedicated SAPS levels that generate outstanding oil film resistance, reduce friction in the engine and provide after treatment device compatibility. MOTUL 8100 X-CLEAN FE 5W-30 brings high lubricating properties such as wear protection and high temperature resistance for better controlled oil consumption. ACEA C2 and C3 lubricants achieve extended drain intervals as managed by the vehicle on-board computer.

Numerous Asian OEMs such as HONDA, KIA / HYUNDAI, MITSUBISHI, NISSAN, SUBARU, SUZUKI, SSANGYONG, TOYOTA,... recommend an ACEA C2 or C3 lubricant to guarantee the maximum performance and durability for most of their recent vehicles (since 2006), especially Diesels with DPF.

MERCEDES has developed MB 229.52 standard for all "BlueTEC" Diesel engines fitted with SCR (Selective Catalyst Reduction) allowing NOx treatment through the use of 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 reduce hydrodynamic friction of the oil, in order to obtain fuel economy especially when the oil is cold. This extra requirement for cold flow properties allows excellent oil flow at start up, faster oil pressure build up, faster revs raisings and faster operating temperature reach.

PSA for its B71 2290 norm requires oil to be able to endure the most severe thermal constraints along with PSA modern after treatment systems compatibility. PSA B71 2290 standard is suitable for most PSA Gasoline engines and most Diesel (including DPF versions) engines, except for "BlueHDi" Diesel fitted with SCR (in this case check your owner's manual and use MOTUL SPECIFIC 2312 0W-30 or MOTUL SPECIFIC 2010 0W-20).

For their latest-generation downsized gasoline engines, which are equipped with direct injection systems and turbochargers, PSA has developed the B71 2290 standard for engine lubricants in order to guarantee the perfect integrity of these gasoline engines facing the risk of LSPI (Low Speed Pre-Ignition) abnormal combustions.

RENAULT has developed RN17 standard for oils able to endure the most severe thermal constraints along with modern after treatment systems compatibility.

The reduced level of Sulfated Ash, Phosphorous and Sulfur contains (Mid-SAPS) technology of MOTUL 8100 X-CLEAN FE 5W-30 protects and extends lifetime of modern after treatment systems such as DPF (Diesel Particulate Filter), SCR (Selective Catalyst Reduction) allowing NOx (Nitrous oxides) treatment through the use of AdBlue® additive or so-called "Diesel Exhaust Fluid", and GPF (Gasoline Particulate Filter) on Gasoline engines.

The Synthese-Technologie base stock provides a high thermal stability and insures an exceptional resistance at high temperatures. Prevents from varnish and sludge to maintain engine cleanliness. Lowers the risk of ring sticking while maxi-

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mizing engine protection and performance of the lubricant even in the most severe conditions.

The RN17 standard applies to all Renault engines: Gasoline (except RS and Alpine), recent Diesel (Euro 6 from mid-2018), as well as all Diesel without DPF.

The RN17 standard does not apply to Diesel engines requiring RN0720.

The FIAT 9.55535-S1 performance level requires the engine oil to combine both ACEA C2 and 5W-30 in order to lubricate the Diesel 1.3L, 1.6L and 2.0L Multijet engines of FIAT, ALFA-ROMEO, LANCIA and CHRYSLER produced from 2007.

The FIAT 9.55535-S3 performance level requires the engine oil to combine both ACEA C3 and 5W-30 in order to lubricate the Diesel 2.2L, 2.8L and 3.0L Multijet and CRD engines of FIAT, ALFA-ROMEO, LANCIA and JEEP produced from 2011.

MOTUL 8100 X-CLEAN FE 5W-30 meets all these very demanding requirements for performance and durability set by OEMs, including in particular the full compatibility to use bio fuels (when using biodiesel at a mix ratio of up to 10% (Biodiesel – B10). This type of lubricant allows fuel consumption reduction and therefore reduces greenhouse gases (CO2) emissions.

RECOMMENDATIONS

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

Do not mix with lubricants not ACEA C3 or ACEA C2 compliant.

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

PROPERTIES

Viscosity grade	SAE J 300	5W-30
Density at 20°C (68°F)	ASTM D1298	0.849
Viscosity at 40°C (104°F)	ASTM D445	72.6 mm ² /s
Viscosity at 100°C (212°F)	ASTM D445	12.2 mm ² /s
HTHS viscosity at 150°C (302°F)	ASTM D4741	3.5 mPa.s
Viscosity Index	ASTM D2270	165.0
Pour point	ASTM D97	-42.0 °C / -44.0 °F
Sulfated Ash	ASTM D874	% weight 0.71

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TBN	ASTM D2896	8.1 mg KOH/g
Flash point	ASTM D92	228.0 °C / 442.0 °F