

## **MOTUL SPECIFIC LL-01 FE 0W-30**

BMW Gasoline engine oil Approved BMW Long Life-01 FE 100% Synthetic

### TYPE OF USE

100% Synthetic High Performance "Fuel Economy" Lubricant, specially designed for BMW and MINI vehicles, fitted with Gasoline engines meeting Euro 4, 5 and 6 emission standards, requiring a "FE – Fuel Economy" engine oil type and approved BMW Long-Life 01 FE.

Suitable for all types of fuels, Gasoline, leaded or unleaded, Ethanol, LPG, Diesel and biofuels. Compatible with catalytic converters.

Some engines may not be able use this type of oil, before use always check the owner's manual.

#### **PERFORMANCES**

STANDARDS ACEA A5/B5

API PERFORMANCE SP

APPROVALS BMW LL-01 FE

The BMW Long Life-01 FE specification imposes severe constraints to the lubricant particularly due to the Valvetronic system. It covers some BMW engines from 2001 and some engines from 2004. BMW LL-01 FE norm covers also all former BMW specifications such as BMW LL-98.

The BMW LL-01 FE standard covers some Gasoline engines running <u>only</u> outside European Union countries, Switzerland, Norway and Liechtenstein. Refer to BMW recommendations when in doubt.

MOTUL Specific LL-01 FE 5W-30 fulfills all the specifications of BMW Long Life-01 FE standard from the BMW Group for BMW, MINI and ROLLS-ROYCE vehicles with no exceptions i.e. for models before and after 2019. For models up to 2019, i.e. until end of 2018 only, MOTUL 8100 X-cess 5W-40 can also be used.

For BMW vehicles requiring an approved BMW LL-04 lubricant, use only products such as MOTUL 8100 X-clean+ EFE 0W-30, MOTUL 8100 X-clean+ 5W-30, MOTUL 8100 X-clean EFE 5W-30, MOTUL 8100 X-clean gen2 5W-40 or MOTUL Specific LL-04 5W-40.

MOTUL SPECIFIC LL-01 FE 0W-30 is particularly resistant at high temperatures to allow better control of oil consumption and to reduce wear thanks to its excellent lubricating properties, while providing significant fuel economy. Provides excellent oil flow, instant oil pressure, faster engine revs-up and faster engine warm-up.

This type of lubricant helps reduce fuel consumption thus reducing greenhouse gas (CO2) emissions to protect the environment



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## **RECOMMENDATIONS**

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

Avoid mixing with lubricants not BMW LL-01 FE compliant.

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

## **PROPERTIES**

| •                               |            |                         |
|---------------------------------|------------|-------------------------|
| Viscosity grade                 | SAE J 300  | 0W-30                   |
| Density at 20°C (68°F)          | ASTM D1298 | 0.841                   |
| Viscosity at 40°C (104°F)       | ASTM D445  | 53.6 mm <sup>2</sup> /s |
| Viscosity at 100°C (212°F)      | ASTM D445  | 10.1 mm²/s              |
| HTHS viscosity at 150°C (302°F) | ASTM D4741 | 3.1 mPa.s               |
| Viscosity Index                 | ASTM D2270 | 179.0                   |
| Pour point                      | ASTM D97   | -45.0 °C / -49.0 °F     |
| Sulfated Ash                    | ASTM D874  | 1.04 % weight           |
| TBN                             | ASTM D2896 | 12.4 mg KOH/g           |
| Flash point                     | ASTM D92   | 222.0 °C / 432.0 °F     |
|                                 |            |                         |