



## MOTUL 5100 10W-50 4T

High Performance Motorcycle Lubricant  
Recreational & Commuting  
Technosynthese® – Ester

### TYPE OF USE

**MOTUL 5100 4T** is a 4-stroke motorcycle engine oil developed to meet the reliability requirements of daily riding and recreational use.

It is suitable for all types of street and off-road motorcycles equipped with 4-stroke engines, with or without integrated gearbox, and with wet or dry clutch systems. **MOTUL 5100 4T** is fully compatible with motorcycles fitted with exhaust after-treatment systems such as catalytic converters or secondary air injection.

The high-performance semi-synthetic **NGEN Core**® formulation combines re-refined and virgin base oils with exclusive Technosynthese® Ester technology, delivering consistent protection and performance for everyday riding and leisure applications.

Other applications: ATVs, UTVs, SxS, personal watercraft (PWC) or snowmobiles depending on manufacturer's viscosity recommendation.

### PERFORMANCES

#### STANDARDS

API SP

JASO MA2 (2023) M033MOT240

Building on its long-standing pioneering expertise, Motul is once again leading the way with **NGEN Core**®, a new technology using re-refined base oils (RRBO). Combining high performance and sustainability, **NGEN Core**® technology allows motorcyclists to ride better, with no compromise on performance and less impact on the environment.

Packaged in a fully recyclable bottle made from 50% recycled plastic, **MOTUL 5100 4T** contributes to reduced environmental impact without compromising performance.

**MOTUL 5100 4T**'s formulation delivers stable friction characteristics in full compliance with JASO MA2 requirements, ensuring consistent clutch engagement, precise gear shifting, and controlled engine power delivery across the entire operating temperature range.

An ester-reinforced formulation combined with a high-performance anti-wear additive system provides strong oil film strength, helping to reduce gear pitting and scuffing while extending protection of engine and transmission components under high-load conditions.

We retain the right to modify the general characteristics of our products in order to offer to our customers the latest technical development.

Product specifications are definitive from the order which is subject to our general conditions of sale and warranty.

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High-temperature oil film stability ensures consistent lubrication under severe thermal stress, reducing internal friction and contributing to optimized fuel consumption, while maintaining full compatibility with JASO MA2 wet clutch performance.

**Features and benefits**

- **Technosynthese® Ester Technology** – Premium fully synthetic formulation with advanced ester-based additives, providing superior anti-wear and oxidation protection for modern 4-stroke engines.
  - **High-Temperature Oil Film Resistance** – Maintains stable high-temperature, high-shear (HTHS) viscosity, ensuring extended engine protection under severe thermal and mechanical stress, consistent with JASO T903 high-load requirements.
  - **Optimized for Catalysts** – Formulated with controlled phosphorus and sulphur levels to ensure compatibility with catalytic converters and exhaust after-treatment systems while meeting JASO MA2 wet clutch performance standards.
  - **Superior Anti-Wear Package** – Advanced anti-wear additives deliver enhanced protection of engine components, gearboxes, and wet or dry clutch systems, minimizing friction, reducing metal-to-metal contact, and extending component service life.
  - **Maximum Performance** – Ensures consistent clutch engagement, smooth and precise gear shifting, rapid throttle response, optimized fuel economy, and reliable cold-start performance.
  - **Sustainable Packaging** – Fully recyclable bottle design reduces environmental footprint while maintaining product integrity.
- The API SP standard guarantees further performance benefits including emissions system compatibility, oxidative stability and deposit control for the most severe modern hardware applications.
- JASO (Japanese Automobile Standards Organization) has developed its own standard for 4-stroke motorcycle engine oils - JASO T903: 2023. It consists of three parts: Engine performance, clutch friction performance, physicochemical limits.
- Specification JASO MA2 provides the most efficient friction values to ensure best clutch friction engagement in all riding modes.

**RECOMMENDATIONS**

Drain interval: Up to 16,000 km, depending on manufacturer's recommendations or individual use.  
Can be mixed with synthetic or mineral lubricants.

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### PROPERTIES

Color	ASTM D1500	Scale 2.5 - 5.0 (dark yellow - brown)
Viscosity grade	SAE J 300	10W-50
Density at 20°C (68°F)	ASTM D1298	0.858
Viscosity at 40°C (104°F)	ASTM D445	124.0 mm <sup>2</sup> /s
Viscosity at 100°C (212°F)	ASTM D445	18.2 mm <sup>2</sup> /s
HTHS viscosity at 150°C (302°F)	ASTM D4741	4.5 mPa.s
Viscosity Index	ASTM D2270	164.0
Pour point	ASTM D97	-33.0 °C / -27.0 °F
Flash point	ASTM D92	232.0 °C / 450.0 °F

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