



## MANNOL Ceramo Ester 9829

Innovative engine protection agent based on synthetic compound ethers – esters (group V oils) and hexagonal boron nitride microparticles h-BN (white graphite) – anti-wear and anti-friction additive for engine oils without oil bath clutches (friction clutches). It is suitable for all types of engines – diesel and petrol, four-stroke and two-stroke and for all types of oils – mineral, semi-synthetic, synthetic, including those containing ether (ester). Ideal product for tuning and high-performance cars.

It is a stable suspension of graphite-like micro powder in ether.

Ether molecules in the additive are magnetically bound to metal surfaces due to their distinct polarity and form a dense and very stable oil film, while ceramic microparticles smooth out any unevenness of friction surfaces and effectively dissipate heat. This prevents direct contact of metal surfaces and wear of separate parts even under the most extreme operating conditions. Dry friction during cold starts, especially at sub-zero temperatures, is prevented, thus minimising wear during engine start-up.

The boundary layer that forms when the product is applied has the following properties:

- extreme pressure resistance – allowing the engine and/or transmission to operate at increased loads without negative consequences;
- excellent anti-wear and anti-friction properties, which significantly increases the life of the engine and/or transmission unit and significantly reduces fuel consumption and engine noise;
- anti-corrosive and anti-oxidant properties.

The additive gives the oil the following properties:

- it prevents dry friction;
- it reduces evaporation, decreases CO<sub>2</sub> emissions and prolongs oil life;
- it improves the thermal-oxidative stability, which increases the resistance to ageing and degradation, thus extending the oil change intervals;
- improves low-temperature properties, making cold starts much easier;
- improves detergent and dispersion properties, preventing deposits of varnish, resins and sludge, which increases the life of the engine and/or transmission and the oil itself.

Compatibility:

- Compatible with all materials, particulate and finest oil filters (for fine filtration): the particle size (no more than 0.5 μm) ensures their free passage through all filters and prevents deposits;
- Compatible with catalytic converters, all types of turbochargers and all injection systems including common rail.

Application: Shake and add to the oil at a ratio of 250 ml per 5 L.

Attention! Not suitable for use in equipment with oil bath clutches (friction clutches).

**PACKAGING**

	MN9829-250 PET		
	MN9829-025BOX		