

MECASURF-MT®

High performance anti-oil spreading agent



Mecasurf-MT® is a high-performance anti-spread surface agent that combats oil spread by reducing the substrate's surface energy. It promotes effective lubrication by preventing oil from flowing out of the friction zone, thereby curbing lubricant loss.

Mecasurf is effective on both plastic and metal, making it the ideal solution for all oil-lubricated micro-mechanisms.

It has become a go-to solution within the automotive industry, where it is applied to micro-motors prior to the oil lubrication stage to promote durability and reliability.

INDUSTRIAL APPLICATIONS

Mecasurf-MT® is recommended as a surface treatment before oil lubrication of micro-mechanisms and precision instruments for which long lifespan and reliability are required:

- Micro-motors: stepper motors
- Ball bearings, open bearings
- Connectors, circuit board
- Actuators

OVERVIEW

Effective:

The ideal solution for combating oil spread on plastic and metallic surfaces.

Benefits:

- Extended lifespan and improved reliability
- Enhanced wear resistance
- Noise reduction
- Energy efficiency
- Motor damage prevention

Easy to Apply:

Mecasurf-MT® is a turnkey product – simply spray and dry. The treated surface can be lubricated with oil immediately after application. Alternative application methods are dipping, flushing and wiping.

Reliable:

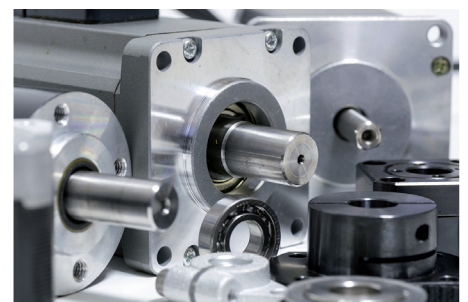
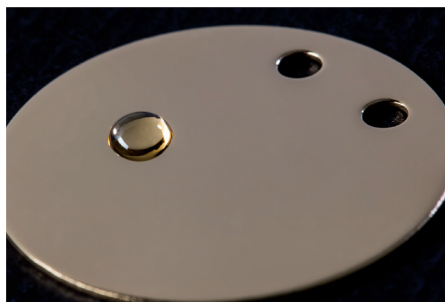
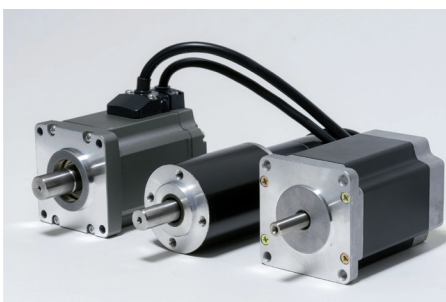
The self-assembled nature of Mecasurf-MT® guarantees a homogeneous coating of constant thickness that can be reproduced with ease.

Resistant:

The coating delivers outstanding long-lasting resistance to temperature, oil, solvents and detergents.

Environmentally friendly:

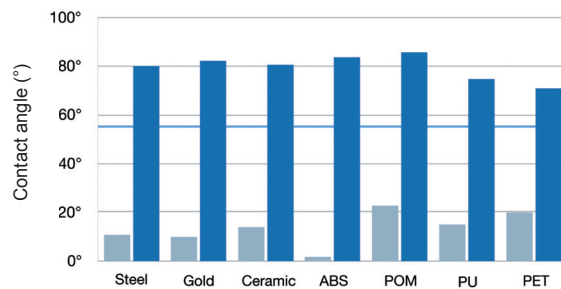
Mecasurf-MT® is an environmentally responsible product with an Ozone Depletion Potential of 0 and a Global Warming Potential of 55. Its atmospheric lifetime is fully compliant with international regulations.



PERFORMANCE

Mecasurf-MT®'s performance is measured by recording oil contact angles on treated surfaces. The high contact angles recorded following the application of Mecasurf show it to be a high-performance oleophobic coating.

Mecasurf-MT® is considered to be effective when oil contact angles exceed 50° (thin blue line in the chart below).



Oil contact angles for various materials before and after the application of Mecasurf-MT®.

Mecasurf-MT® coatings remain stable across a wide temperature spectrum, ranging from -50°C to +150°C.

COMPATIBLE MATERIALS

- Plastics : ABS, POM, PU, PET, Nylon, plastoferrite ;
- Metals and alloys: stainless steel, titanium, copper, aluminum, nickel, gold, silver ;
- Minerals : glass, silicon, germanium;
- Ceramics : zirconia, alumina, silica, titania.

PHYSICO-CHEMICAL PROPERTIES

Surface Tension	13 +/- 2 dyn.cm ⁻¹
Aspect	Clear Colorless
Flash Point	None
Boiling Point	76°C
Freezing Point	-138°C
Density at 25°C	1.43
Ozone Depletion Potential	0
Global Warming Potential	55
Atmospheric lifetime	0,77 year

PRODUCT INFORMATION



Mecasurf-MT® is a ready to use solution available in containers of 1L and 3L.

Mecasurf-MT® is a nonflammable product composed of a chemically active perfluoropolyether compound dissolved in a fluorinated solvent. Mecasurf-MT® is patented by Surfactis Technologies (patents n° WO2008/017721 and n° WO2017/144480).

Surfactis Technologies is certified according to ISO 9001.

