microGLEIT®
TRIBOLOGY SOLUTIONS

DF 911

MICRO-PE DRY LUBRICATION FILM

microGLEIT DF 911 is a water based suspension of microWHITE solid lubricants. The transparent dry film provides excellent lubrication properties.

Product Features

After application microGLEIT 911 yields a transparent, almost invisible layer with excellent lubrication properties.
The good processing characteristics allow a cost-effective treatment of the parts.

- Constant, low friction values with very low scattering
- High abrasion resistance
- The layer is (almost) not visible but can be detected by means of UV-light
- High adhesion on a wide variety of materials
- No impact on the substrate material
- No subject of hazard labelling, environmentally friendly
- Good suitability for automatic parts feeding and automatic bolting
- Low screw-in torque for chipboard screws

Product Application

The field of application for microGLEIT DF 911 are mass-parts, which have to be coated economically for defined friction values.

The coating is used to achieve a defined, predictable frictional behaviour, thus enabling easy and faster assembly. The dry lubricant replaces oil or grease lubrication.

Typically DF 911 is applied on:

- Chipboard- and wood screws
- Electroplated bolts and nuts
- Stainless steel and plastic bolts
- Rivets
- Dowels
- Anchor bolts
- etc…

Instructions for Use

- microGLEIT DF 911 is supplied as a concentrate - please protect from frost!
- Before application microGLEIT DF 911 has to be diluted with water (at least drinking water quality). The water is added to the product slowly with constant stirring.
- The parts to be coated have to be free from oil and dirt.
- For best film building we recommend to preheat the parts to approximately 30–50 °C / 86–122 °F .
- After wetting of the parts they have to be dried with hot air at ~50 to max 60 °C / 122–140 °F .
- In order to avoid condensation water on the parts, we recommend to pack the parts only after cooling down to ambient temperature.

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- It is important to control the bath concentration regularly — please ask us for instructions.
- The pH-Value must not drop below 8 (please avoid contamination of the coating bath with acids from previous process steps).
- In order to prevent unwanted foaming of the coating bath, too heavy circulation or stirring of the bath should be avoided. A suitable anti-foam additive can be ordered under the name ‚microGLEIT AF-90'.
- Keep bath and container closed in order to avoid unwanted evaporation and contamination!

Typical Properties microGLEIT DF 911

Test/Feature	Standard/ Parameter	Unit	DF 911	
Appearance (as delivered)	visually	—	transparent, yellowish liquid	*As Delivered*
Density	DIN 51757	g/cm³	~ 1,0	
Viscosity	DIN 53211 / 3 mm	s	32 – 38	
Thinner	—	—	water („drinking water quality or demineralised")	
pH-Value	—	—	8,5 - 9,5	
Available Container Sizes	—	—	20 kg canister 200 kg drum – 600/1000 kg IBC	
Usable Life - Closed original container		months	12	
Handling Precautions	—	—	see SDS	
Appearance (Applied)	visually	—	transparent, colorless	*Applied*
Service Temperature	—	°C / °F	-40 to +120 / -40 to 248	
Friction value µ	Screw-Test		0,09 - 0,12	

Dilution Ratio (DF 911 : Water) Depending on Coating Process and Specific Requirements			
Centrifuge	Immersion Drum	—-	*Process*
1 : 1 to 1 : 4	1 : 5 to 1 : 7	—	