



DF 931+20

MICRO-PE DRY LUBRICATION FILM

microGLEIT DF 931+20 is a water based suspension of microWHITE solid lubricants – it is no subject of hazard labelling!

The semi-matt dry film provides excellent lubrication properties with very low friction.

Product Features

microGLEIT DF 931+20 is designed especially for stainless steel screws, self-drilling and thread-rolling screws for achieving the lowest possible friction with low scattering. The performance level of DF 931+20 is even higher than from microGLEIT DF 931 as well as DF911 and DF 921.

After application microGLEIT DF 931+20 gives a transparent, almost invisible layer. For improved film building properties a little alcohol is added to the formulation.

- DF 931+20 is designed to achieve defined, reproducible friction values with lowest scattering.
- The layer is (almost) not visible but can be detected by means of UV-light.
- High adhesion on a wide variety of materials
- For highest requirements (Stainless steel screws, thread rolling and self-drilling screws)
- No hazard labels, environmentally friendly

Instructions for Use

- microGLEIT DF 931+20 is supplied as a concentrate - please protect from frost!
- Before application microGLEIT DF 931+20 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 40 to 45 °C
- After wetting of the parts they have to be dried with hot air at ~50 to max 60 °C.
- In order to avoid condensation water on the parts, we recommend to pack the parts only after cooling down to ambient temperature

Product Application

Typical applications of microGLEIT DF 931+20 are bulk parts, which have to be coated economically with a dry film lubricant in order to improve their sliding properties

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 931+20 is applied on:

- Stainless steel bolts and nuts
- Facade screws
- Thread-rolling and self-drilling screws
- Galvanically refined bolts and nuts
- Pinched nuts
- Aluminium Nuts
- Bulk parts with inorganic metal coatings
- Self-tapping and thread forming screws
- Rivets, dowels

- It is important to control the bath concentration regularly — please ask us for instructions.
- The pH-Value has to be controlled regularly
- In order to prevent unwanted foaming of the coating bath, too heavy circulation or stirring of the bath should be avoided. A suitable de-foaming additive can be ordered under the name „microGLEIT AF-DCP-9“.
- Keep bath and container closed in order to avoid unwanted evaporation and contamination!

Product Characteristics microGLEIT DF 931+20

Characteristic	Standard/ Parameter	Unit	DF 931+20	
Appearance (as delivered)	visually	—	milky white liquid	As Delivered
Density	DIN 51757	g/cm ³	~ 1,0	
Viscosity	DIN 53211 / 3 mm	s	~ —	
Thinner	—	—	water („drinking water quality or de-ionized“)	
pH-Value	—	—	4,5 – 6	
Available Container Sizes	—	—	20 kg canister 200 kg drum – 600/1000 kg IBC	
Shelf Life - Closed original container		months	12	
Hazard Notes	—	—	none	
Appearance (Applied)	visually	—	semi-matt	Applied
Operating Temperature	—	°C	-40 to +120	
Friction value μ	Screw-Test		0,07 – 0,09	

Dilution Ratio (DF 931+20 : Water) Depending on Coating Process and Specific Requirements

Centrifuge	Immersion Drum	Very low μ required	Process
1 : 1to 1 : 4	1 : 2 to 1 : 7	1:1 to 1:2	