



LS 866

GRAPHITE ANTI-FRICTION COATING

smartGLEIT LS 866 is an air-curing anti-friction coating with a synergistic combination of solid lubricants (Graphite) and a solvent based, inorganic binder resin.

Product Features

smartGLEIT LS 866 is air-curing already at room temperature. It is the classic graphite anti-friction coating suitable for a great number of applications.

- Dark grey, dry sliding film
- Good adhesion on many substrates
- High pressure resistance
- Low friction values possible
- Ideal for assembly and running-in
- Prevents from stick-slip
- Sulfur-free — metallurgically compatible
- Wide service temperature range - up to 600 °C (short term, under absence of O₂)

Product Application

Dry Lubrication

smartGLEIT LS 866 can be used as dry lubricant in all applications where lubrication with oil or grease is not possible. LS 866 is also well suited, whenever a sulfur-free sliding film is required.

Chipless Metalworking

smartGLEIT LS 866 is also well suited for metal forming processes of critical materials. Using LS 866, hard-to-machine materials can be cold-formed with good results.

Application examples:

- Metal forming – pipe bending, cold extrusion, bulging, upsetting
- Ejectors (dies of PDC-machines)
- Screw and spindle lubrication at high temperatures

Instructions for Use

- smartGLEIT LS 866 is delivered ready-to-use (bulk ware and aerosol). It may be diluted with smartGLEIT TC 80 Thinner.
- The easiest method of application is spraying via aerosol can.
For the bulk ware following application methods are possible:
 - Spraying of bulk ware – all industry standard methods are possible
 - Dip-coating – especially effective with bulk material or non scooping parts
 - Dip-spin-coating - the industry standard for bulk materials — also for scooping parts
 - Paint-roller or brush-application — when other methods are not possible
- Shake or stir well before use and also regularly during use – please take care that the fluid vortex is laminar, so no air will be stirred into the product.
- smartGLEIT LS 866 should be applied on clean surfaces only.
- Usually only one friction partner is coated — ideally the one „with the longer sliding distance“.

- After the wet film is applied, the solvent must be evaporated to get a dry film. We recommend preheating the parts to be coated and / or drying with warm air. It is important to work in a well ventilated area, otherwise combustible mixtures may occur. Besides speeding up the process this will help to generate an even coating.
- The coating equipment should be cleaned after the job is done - please close the coating bath or the container during and after work.
- Look for application friendly design — avoid burrs or sharp edges on sliding partners.
- The adhesion of the coating can be significantly increased by using pretreatments e.g. sandblasting, phosphating, anodising or plasma treatment.
- When used on rubber or plastic parts, the compatibility with the solvent used in smartGLEIT LS 866 must be checked before starting serial production. Due to the short exposure time with the solvent content, however, incompatibilities are usually unlikely.

Typical Properties smartGLEIT LS 866

Test/Feature	Standard/ Parameter	Unit	LS 866	
Appearance (as delivered)	visually	—	dark grey lacquer	As Delivered
Density	DIN 51757	g/cm ³	~ 0.9	
Viscosity	DIN 53211 / 3 mm	s	14 – 24	
Thinner	—	—	smartGLEIT TC 800	
Flash Point	DIN 51755	°C / °F	> 21 / > 70	
Available Container Sizes	—	—	10 liter pail	
Usable Life - Closed original container		months	12	
Handling Precautions	—	—	pls. see SDS	Applied
Appearance (Applied)	visually	—	dark-grey dry film	
Drying Time			30–60 min @ 20 °C / 68 °F	
Service Temperature	—	°C/°F	-70 to +550 / -292 to 1022 °F	
Friction Value μ	Screw-Test		~0.1	
Layer Thickness		μm	3 to 20	