smartGLEIT®
FRICTION MEETS ENGINEERING

LS 8042

HIGH TEMPERATURE ANTI-FRICTION COATING

smartGLEIT LS 8042 is a solvent based, heat curing anti-friction-coating with special solid lubricants for very high temperatures and a high performance organic binder resin.

Product Features

- Greyish-green AFC for very high temperatures
- Wide range of working temperatures -80 to +1200 °C , but especially well suited for temperatures above 400 °C.
- Very good release properties — connections can be opened after extended heat exposure
- Good adhesion properties
- Oil and solvent resistant
- Application with most common industrial application techniques
- For setting/adjusting a screw compatible coefficient of friction, a top coating (e.g. DF 921 or DF 905) is necessary
- LS 8042 is meeting the VW standard TL 52501

Product Application

Generally suited for screws, nuts, washers and bolts used in high temperature applications securing the detachability after operation loads.

Examples:

- For applications used in automotive industries, e.g. connections/threads for exhaust components, turbo-charges, lambda sensors, spark plugs – generally for working temperatures above 500 °C .
- Turbine bolts, flange connections in power plants.
- Flange connections or threaded joints e.g. in chemical plants, refineries or heating systems.
- Parts coated with AFC's are usually well suited for automated assembly processes.

Instructions for Use

- smartGLEIT LS 8042 can be applied with common industrial application technologies, such as
  - Spraying - for best layer quality
  - Dip-coating - for non scooping parts (‚medium size')
  - Dip-spin-coating - for bulk parts
  - Roll or brush - special applications
- Depending on application LS 8042 usually is used diluted. As a suitable thinner smartGLEIT TC 88-NE (which also can be used for cleaning the application equipment) is available.
- The product must be stirred well before use and regularly during processing. Please take care that the fluid vortex is laminar, so no air will be stirred into the product.
- Coating of one friction partner usually is sufficient (best the one with the longer sliding distance).
- The surface to be coated has to be clean — pretreatments such as sandblasting, phosphating or plasma usually increase the layer adhesion.

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- In order to achieve media resistance and best lubrication performance, the dry coating must be cured at elevated temperatures (see table below).
- In most cases it is beneficial to preheat the parts before applying the coating (60 to max. 150 °C, (140 to max 302 °F) depending on application).
- Look for application friendly design — avoid burrs or sharp edges.
- Clean application equipment after use (Thinner TC 88-NE) and keep coating in closed containers or closed dipping baths.
- For further technical support please ask our technical service - we will be happy to support you.

Typical Properties smartGLEIT LS 8042*

Test / Feature	Standard/ Parameter	Unit	LS 8042	
Appearance (as delivered)	visually	—	ochre-coloured liquid	*As Delivered*
Solid Lubricants (Type)	—	—	high temperature solid lubricants	
Binder Resin			organic	
Density	DIN 51757	g/cm³	~ 1.2	
Flash-Point	DIN 51755	°C / °F	> 25 / 77	
Viscosity	DIN 53211 / 5 mm	s	30–50	
Thinner	—	—	smartGLEIT TC 88 NE	
Available Container Sizes	—	—	10 / 20 / kg pail	
Usable Life - Closed original container		months	465 days	
Handling Precautions	—	—	see SDS	
Appearance	visually	—	ochre-coloured; dry film	*Applied*
Service Temperature	—	°C / °F	-70 to +1200 / -94 to2192	
Curing	@ 250 °C / 482 °F @ 220 °C / 428 °F @200 °C / 392 °F	min	> 5 > 40 > 120	
Layer Thickness		µm	5 to 20	

*Note: LS 8042 - formerly known as TN 8042