

GTS® Thread Sealant Paste

TECHNICAL DATA SHEET 116

GRAFOIL® GTS® graphite thread sealant paste is a patented, high-purity paste made from a combination of nuclear grade graphite and a nuclear quality petroleum-based carrier. It has all the characteristics required for long-life performance, even under the most severe conditions. GTS® paste is made to seal small diameter, close tolerance threaded pipe joints in critical service applications to 635°C (1175°F) and 16MPa (2300 psi).

Applications

- Seal small diameter
- Close tolerance threaded pipe joints in critical service

Directions for Use

- Thoroughly clean threaded surfaces prior to application.
- Knead tube well (for best results, remove cap, squeeze out air, place cap back on tightly, then knead well).
- Apply paste evenly and fill threads completely. Carefully assemble and tighten the threaded joint.
- Close cap tightly after use.
- Joint is ready for immediate use.

GTS® paste can be certified to meet many nuclear specifications because of its purity and thermal stability. Supplied in a form that permits easy application, GTS® paste is an ideal replacement for Teflon® thread sealant tape and other conventional thread sealant materials in critical high temperature and high-pressure service applications.

Each lot of GTS® paste is packaged in 125 gm nuclear grade polyethylene “squeezable” tubes to protect against contamination.

The purity level of GTS® paste allows it to meet the stringent certification requirements of the nuclear power generation industry such as the General Electric nonmetallic material specification D50YP12 Rev 2.



GTS® paste can also be used as an effective bolt lubricant or anti-seize compound, having outperformed conventional lubricants under tests. Because GTS® paste does not harden or cure with time or temperature, joints sealed with GTS® paste will be easy to disassemble even after years of high-temperature service.

Typical Properties*

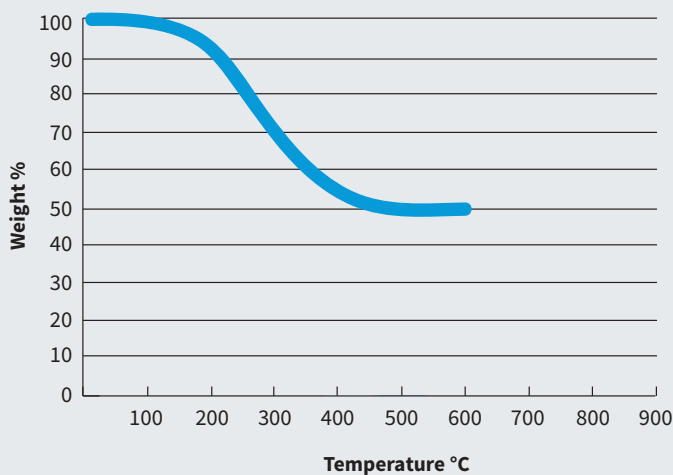
ELEMENT	TYPICAL PROPERTY
Total Halogen (as Cl)	<25 ppm
Leachable Chloride	<10 ppm
Total Chlorine	<10 ppm
Total Fluorine	<25 ppm
Total Nitrite	<1 ppm
Total Nitrate	<10 ppm
Total Sulfur	<150 ppm
Embrittling Metals (No single embrittling metal >200 ppm)	<250 ppm

Notes:

* Properties listed are typical and cannot be used as accept/reject specifications.

SHELF LIFE	2- Year Min from date of first use
STORAGE TEMP	≤38°C (100°F)
PIPE SIZE LIMITATIONS	≤2" (50.8 mm OD close fitting threaded joints)

**TGA OF GTS PIPE THREAD SEALANT PASTE WEIGHT
Loss vs. Temperature**



TGA Analysis

Weight loss begins at about 125°C (255°F), with 6% weight loss at 200°C (390°F). GRAFOIL GTS maintains its seal up to 635°C (1175°F).

+1 (800) 253.8003 (Toll-Free in USA) | +1 (216) 529.3777 (International)
www.neograf.com | info@neograf.com

©2018 NeoGraf Solutions, LLC (NGS). This information is based on data believed to be reliable, but NGS makes no warranties, express or implied, as to its accuracy and assumes no liability arising out of its use. The data listed falls within the normal range of product properties, but should not be used to establish specification limits or used alone as the basis of design. NGS's liability to purchasers is expressly limited to the terms and conditions of sale. eGRAF®, GRAFGUARD® and GRAFOIL® are registered trademarks of NeoGraf Solutions, LLC. eGRAF®, GRAFGUARD® and GRAFOIL® products, materials, and processes are covered by several US and foreign patents. For patent information visit www.neograf.com.