

# GTC Flexible Graphite

Technical Data Sheet 002

## Product Family - Single Layer Material (Service to 450°C)

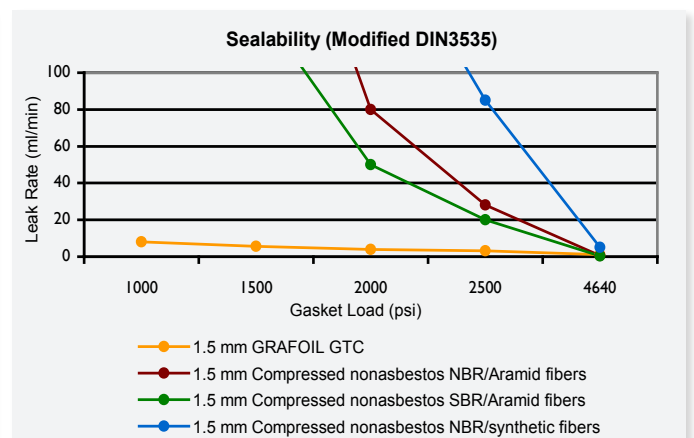
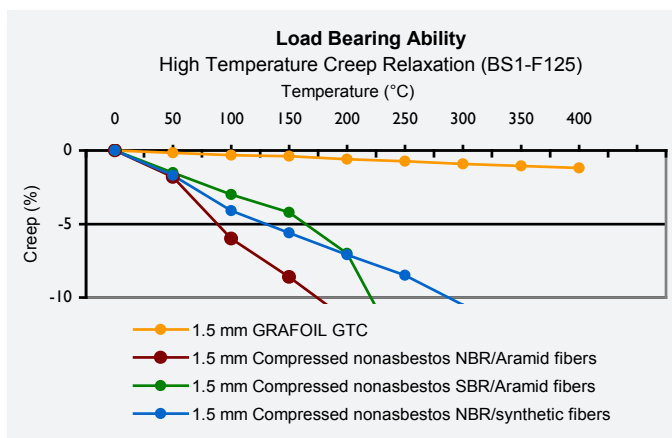
- TG-411 - 99.998% Graphite
- GTA - Nuclear 99.8% Graphite
- TG-312 - 99.8% Graphite
- GTE - 98% Graphite
- GTC - 97% Graphite
- TG-337 - 97% Graphite

## Product Overview

GRAFOIL® GTC flexible graphite is designed for use in most automotive or internal combustion applications.

## Applications

- High-temp sealing applications where binder-based materials fail.
- Often combined with inserts to make head gaskets, exhaust manifold gaskets, EGR assemblies



While maintaining an effective seal, GRAFOIL® material exhibits virtually no creep relaxation. As a result, the need for periodic bolt tightening is greatly reduced.

## Typical Properties\*

Characteristic	Typical Value
Thickness	0.015" (0.38 mm) 0.020" (0.51 mm) 0.025" (0.64 mm) 0.030" (0.76 mm) 0.035" (0.89 mm)
Width	39.4" (1000 mm)
Length	100' (30.5 m)
Bulk Density	70 lb/ft <sup>3</sup> (1.12 g/cc)
Ash Content	3%
Carbon Content	97%
Moisture	0.1%
Leachable Chloride	<10 ppm
Oxidation Weight Loss	12%
Compressibility at 5000 psi (35 MPa) load	43%
Recovery after 5000 psi (35 MPa) load	13%
Tensile Strength	650 psi
Temperature Use Range	-400°F to 840°F (-240°C to 450°C)
Creep Relaxation Method: BSI-F125 at 6391 psi (44.1 MPa) load up to 400°C	<3% for 70 lb/ft <sup>3</sup>
Sealability Method: Mod DIN 3535 at 580 psi N <sup>2</sup> at 32 MPa load	<1.5 ml/min for 70 lb/ft <sup>3</sup>
Certification	Certify to Grade

### Notes:

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

+1 (800) 253-8003 (Toll-Free in USA)  
+1 (216) 529-3777 (International)

www.graftech.com | www.grafoil.com  
grafoil@graftech.com

**Redefining limits**

© 2013 GrafTech International Holdings Inc. This information is based on data believed to be reliable but GrafTech 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. GrafTech's liability to purchasers is expressly limited to the terms and conditions of sale. GRAFOIL, EXPANDOGRAF, GRAFKOTE, GTS, and RIBBON-PACK are registered trademarks of GrafTech International Holdings Inc. GRAFOIL flexible graphite materials, and processes are covered by several US patents. For patent information visit [www.grafoil.com/patents](http://www.grafoil.com/patents).

2.21.2013