

# GHE Metal-Reinforced Laminate

## TECHNICAL DATA SHEET 131

### Product Family - Laminates (Metal-Reinforced)

- GHH - GTC with Flat Low-Carbon Steel
- TG-251 - GTC with Thicker Low-Carbon Steel
- **GHE - GTB with Tanged Stainless Steel**
- GHR - GTB with Flat Stainless Steel
- GHT - GTB with C-276

### Applications

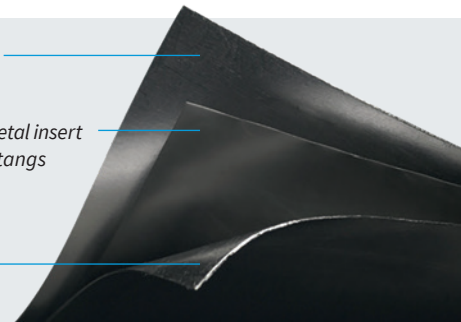
GHE material is suitable for standard industrial fluid sealing applications.

- Chemical
- Petrochemical
- Refinery
- Steam Service
- Cryogenic Applications
- ASME Class 150 & 300 Flanges

GRAFOIL® GTB Flexible Graphite  
(per Technical Data Sheet 436)

316 or 316L stainless steel\* tang metal insert  
- Pierced to provide protruding tangs  
- 0.004" thick (prior to tanging)  
(per ASTM A-240)

GRAFOIL® GTB Flexible Graphite  
(per Technical Data Sheet 436)

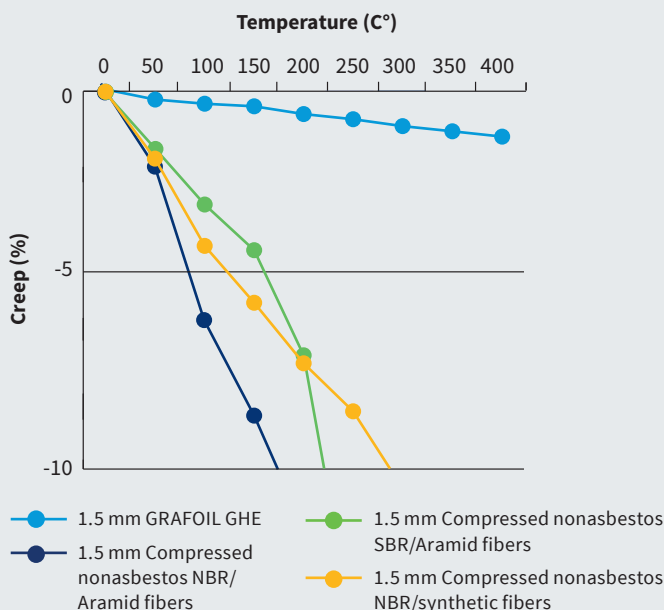


### Product Overview

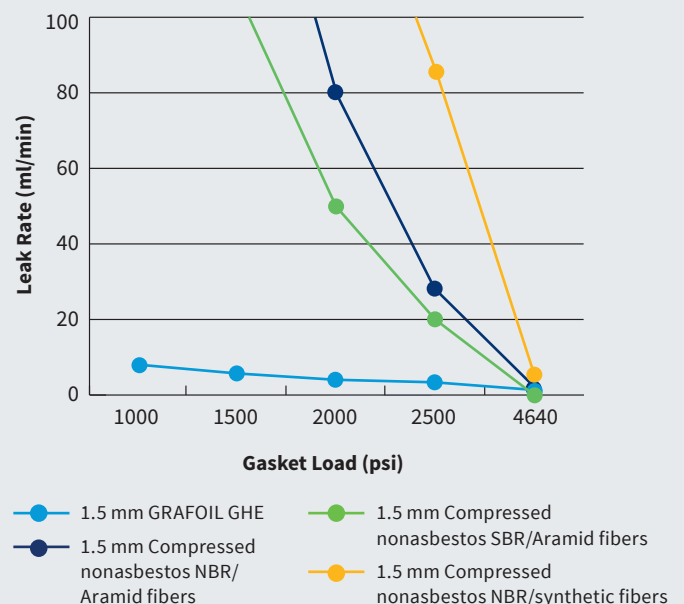
GRAFOIL® GHE metal-reinforced laminate consists of GRAFOIL® GTB flexible graphite mechanically attached to both faces of a stainless steel tang metal insert.

#### LOAD BEARING ABILITY

High Temperature Creep Relaxation (BS1-F125)



#### SEALABILITY (MODIFIED DIN3535)



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 of Laminate	0.064" (1.63 mm) 0.124" (3.15 mm)
Width	39.4" (1000 mm)
Length	39.4" (1000 mm) 100' (30.5 m) (< 0.064" thickness)
Bulk Density (Graphite)	70 lb/ft <sup>3</sup> (1.12 g/cc)
Compressibility at 5000 psi (35 MPa) load	36% for 0.064" thick
Recovery after 5000 psi (35 MPa) load	18% for 0.064" thick
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>
Temperature Use Range	-400°F to 975°F (-240°C to 525°C)
Resistance in #3 Oil	
Thickness increase	<12%
Weight change	<35%
Resistance in #1 Oil	
Thickness increase	<8%
Weight change	<33%
Certification	Certify to Grade

Notes:

\* Because teeth of the tanged metal interlayer may indent metals softer than 316/316L Stainless Steel, Grade GHE gaskets are not normally recommended for use with glass, bronze, aluminum or other softer metal flanges.

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

## ASME Gasket Factors

- “m” Factor: 2
- “y” Stress: 2,500 psi (17.28 MPa)
- Max Gasket Unit Load: 24,000 psi (165.87 MPa)

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