

# GHR Metal-Reinforced Laminate

## TECHNICAL DATA SHEET 130

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

- GHR - GTB with Flat Stainless Steel
- GHE - GTB with Tanged Stainless Steel
- TG-251 - GTC with Thicker Low-Carbon Steel

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

0.002" thick flat 316 or 316L  
stainless steel insert (per ASTM  
F-A-240 and AMS 5524)

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

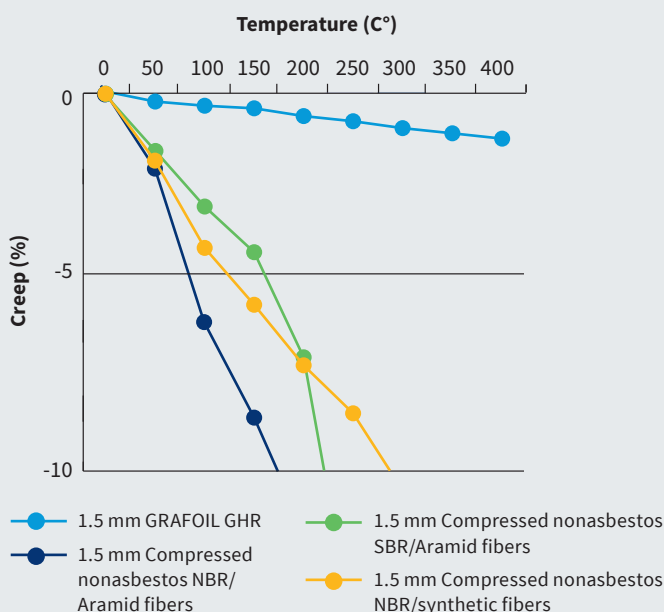
### Applications

GRAFOIL® GHR material is suitable for standard industrial fluid sealing applications.

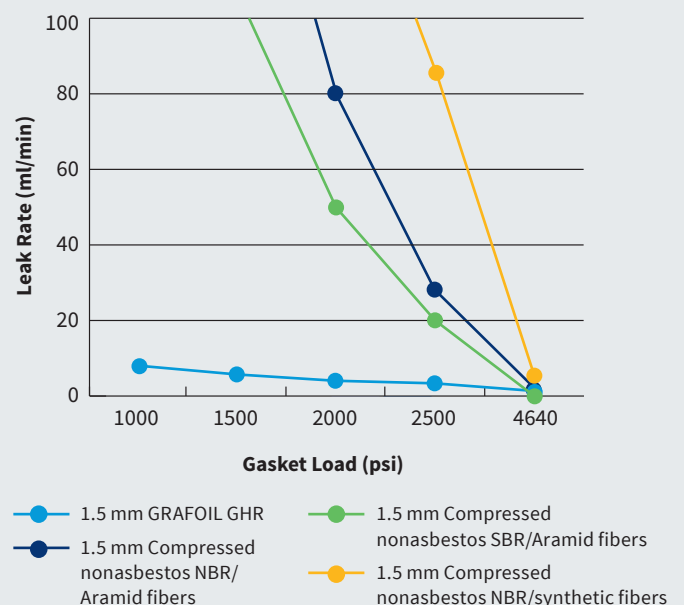
- Chemical
- Petrochemical
- Refinery
- Steam Service
- Cryogenic Applications
- ASME Class 150 & 300 Flanges

#### 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	0.032" (0.81 mm)
	0.062" (1.57 mm)
	0.125" (3.15 mm)
Width	39.4" (1000 mm)
Length	39.4" (1000 mm) 100' (30.5 m) to 500' (152.4 m) for ≤ 0.062" thickness
Bulk Density (Graphite)	70 lb/ft <sup>3</sup> (1.12 g/cc)
Compressibility at 5000 psi (35 MPa) load	40%
Recovery after 5000 psi (35 MPa) load	15%
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 N2 at 32 MPa load	<1.5 ml/min for 70 lb/ft <sup>3</sup>
Tensile Strength	3800 psi (26.31 MPa) additive of steel and GRAFOIL® flexible graphite
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:

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

ASME Gasket Factors

- “m” Factor: 2
- “y” Stress: 900 psi (6.22 MPa)
- Max Gasket Unit Load: 24,000 psi (165.87 MPa)

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