

# GHR Laminate

Technical Data Sheet 130

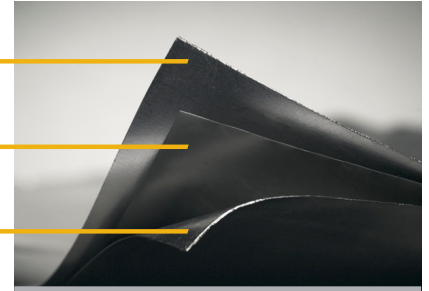
## Metal Reinforced Laminates



GRAFOIL Grade GTB  
(per Technical Data Sheet 436)

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

GRAFOIL Grade GTB  
(per Technical Data Sheet 436)



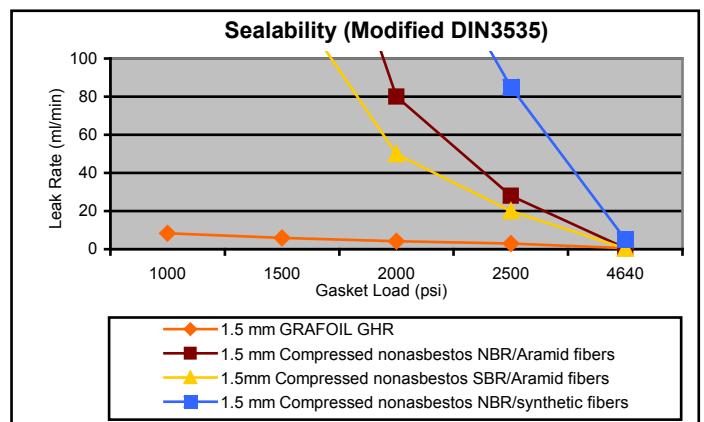
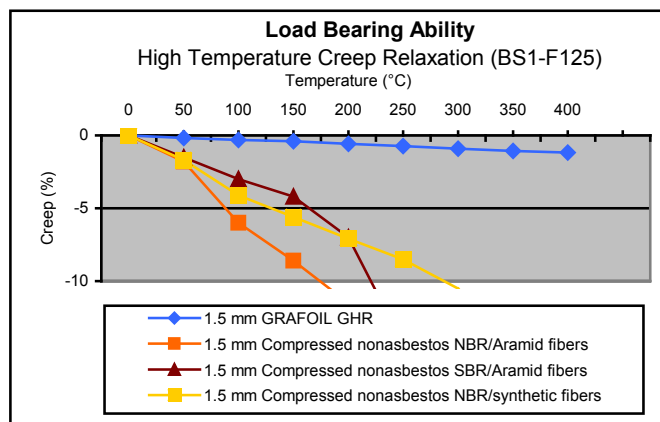
## Product Overview

GRAFOIL Grade GHR is an uncured laminate made with GRAFOIL Grade GTB flexible graphite adhesively bonded to both faces of a 0.002" thick flat 316 or 316L stainless steel insert. Surface identifiable, laminate is branded with the GRAFOIL grade and source guarantee.

## Applications

Grade GHR is suitable for standard industrial fluid sealing applications.

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



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	Value
Thickness of Laminate	0.032" (0.81 mm) Standard 0.062" (1.57 mm) Standard 0.122" (3.10 mm) Standard <i>Non-standard thicknesses may be available upon request</i>
Width	39.4" (1000 mm) Standard <i>Non-standard widths may be available upon request</i>
Length	39.4" (1000 mm) Standard 60" (1524 mm) Standard for 0.062", 0.122" thick 100' (30.5 m) Standard (available for ≤0.062" thick) <i>Non-standard lengths may be available upon request</i>
Bulk Density (Graphite)	70 lb/ft <sup>3</sup> (1.12 g/cc) Standard <i>Non-standard densities may be available upon request</i>
Compressibility at 5000 psi (35 MPa) load	40% Typical
Recovery after 5000 psi (35 MPa) load	15% Typical
Creep Relaxation Method: BSI-F125 at 6391 psi (44.1 MPa) load up to 400°C	<3% Typical 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 Typical for 70 lb/ft <sup>3</sup>
Tensile Strength	3800 psi (26.31 MPa) Typical 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 Weight change	<12% Typical <35% Typical
Resistance in #1 Oil Thickness increase Weight change	<8% Typical <33% Typical
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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