

GHR Laminate

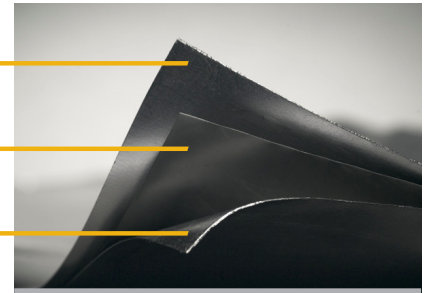
Technical Data Sheet 130

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)



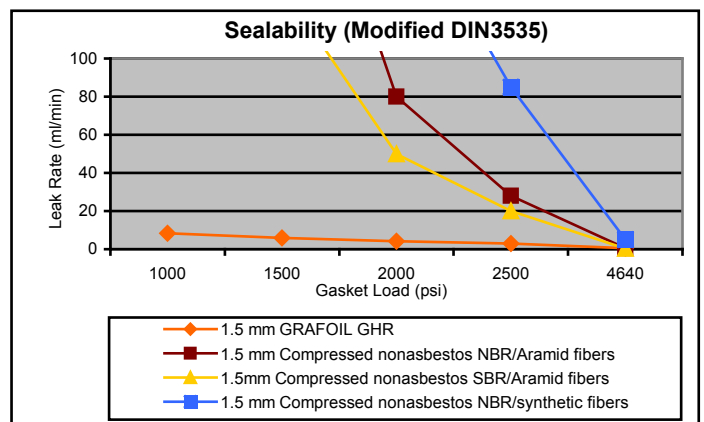
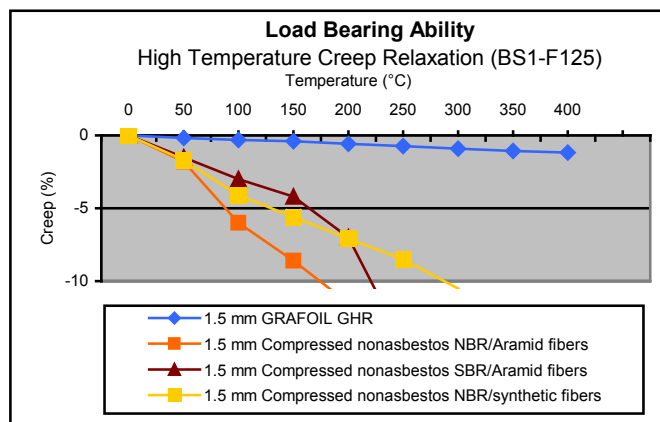
Product Overview

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 ³ (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 ³
Sealability Method: Mod DIN 3535 at 580 psi N ² at 32 MPa load	<1.5 ml/min Typical for 70 lb/ft ³
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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