

METAL REINFORCED LAMINATES

STANDARD GRADES

GHE

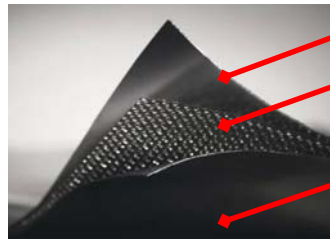


GHR



GRAFOIL Grade GHE

GRAFOIL Grade GHE laminate is made with GTB flexible graphite mechanically bonded to both faces of a 316 or 316L stainless steel tang metal insert. Surface identifiable, laminate is branded with the GRAFOIL grade and source guarantee.



GRAFOIL Grade GTB

316 or 316L stainless steel tang metal insert

- Pierced to provide protruding tangs
- 0.004" thick (prior to tanging)

GRAFOIL Grade GTB

APPLICATIONS

Grade GHE is suitable for standard industrial fluid sealing applications.

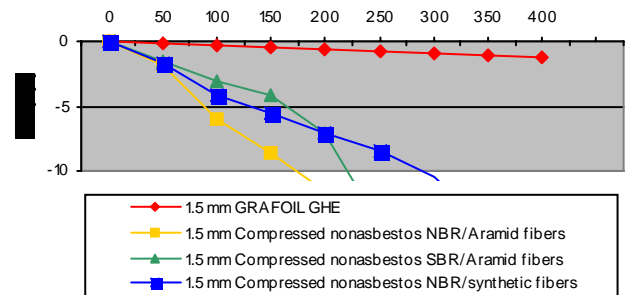
- Chemical
- Petrochemical
- Refinery
- Steam Service
- Cryogenic Applications
- ASME class 150 & 300 Flanges



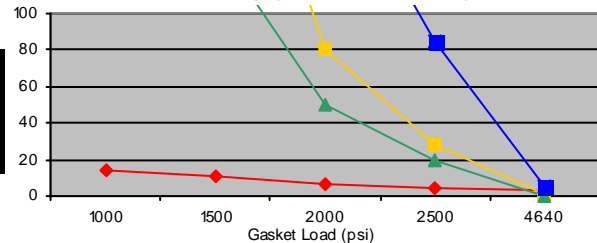
While maintaining an effective seal, GRAFOIL material exhibits virtually no creep relaxation. As a result, the need for periodic bolt tightening is greatly reduced.

Load Bearing Ability

High Temperature Creep Relaxation (BS1-FI25)
Temperature (°C)



Sealability (Modified DIN3535)



Grade GHE Typical Properties¹

Laminate Construction:

1. GRAFOIL Grade GTB (per Technical Bulletin 436)
2. 0.004" thick (prior to tanging) 316 or 316L stainless steel² (per ASTM A-240)
3. GRAFOIL Grade GTB (per Technical Bulletin 436)

| CHARACTERISTIC | TYPICAL PROPERTY |
|--|--|
| Thickness of Laminate | 0.064" (1.63 mm) Standard 0.084" (2.13 mm) Standard 0.124" (3.15 mm) Standard <i>Non-standard thicknesses may be available upon request</i> |
| Width | 39.4" (1000 mm) Standard 60" (1524 mm) Standard for 0.064", 0.124" thick <i>Non-standard widths may be available upon request</i> |
| Length | 39.4" (1000 mm) Standard 60" (1524 mm) Standard for 0.064", 0.124" thick 100' (30.5 m) Standard (available for ≤0.064" 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 | 36% Typical for 0.064" thick |
| Recovery after 5000 psi (35 MPa) load | 18% Typical for 0.064" thick |
| Creep Relaxation Method: BSI-FI 25 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 |
| 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 |

ASME Gasket Factors

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

¹ Properties listed are typical and cannot be used as accept/reject specifications. Specifications are listed under Technical Bulletin 161.

² Because teeth of the tanged metal interlayer may indent metals softer than 316/316 Stainless Steel, Grade GHE gaskets are not normally recommended for use with glass, bronze, aluminum or other softer metal flanges.