NEOGRAF™ SOLUTIONS

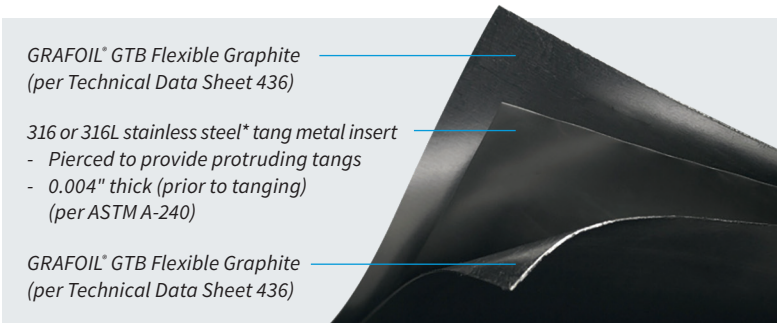
GRAFOIL®

# GHE Metal-Reinforced Laminate

TECHNICAL DATA SHEET 131

## 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



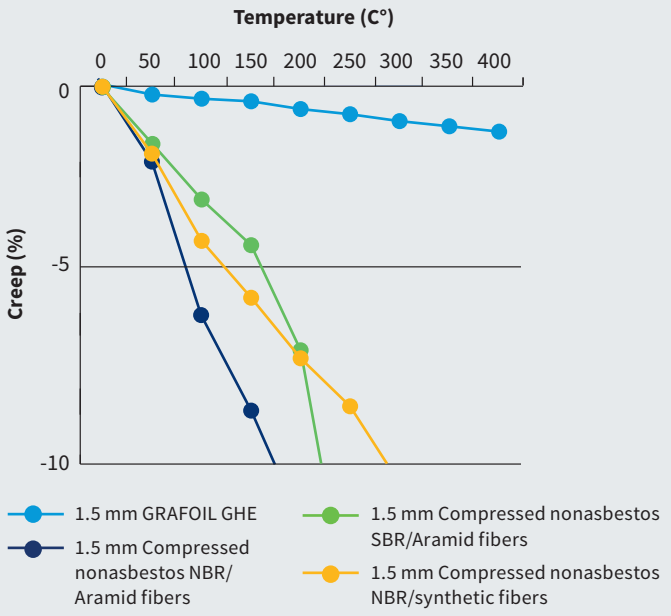

## Applications

GHE material is suitable for standard industrial fluid sealing applications.

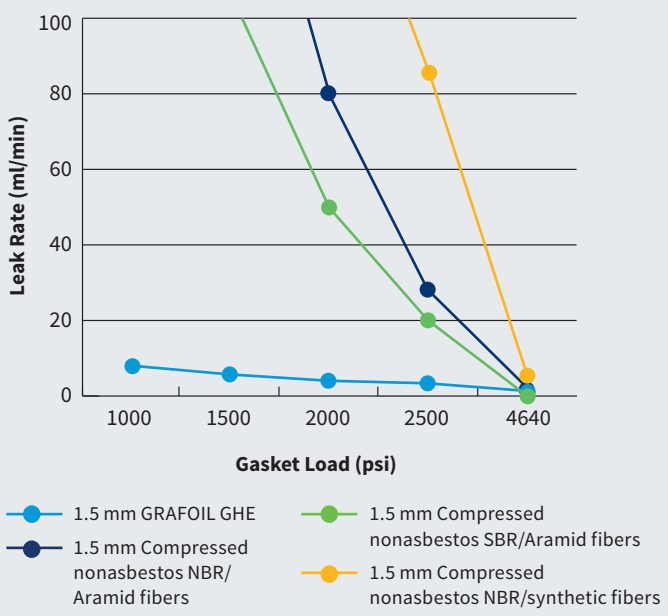
- Chemical
- Petrochemcial
- Refinery
- Steam Service
- Cryogenic Applications
- ASME Class 150 & 300 Flanges

**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 | 0.062" (1.57 mm)<br>0.125" (3.15 mm) |
| Width | 39.4" (1000 mm) |
| Length | 39.4" (1000 mm)<br>100' (30.5 m) (≤ 0.064" thickness) |
| Bulk Density (Graphite) | 70 lb/ft$^3$ (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:<br>BSI-F125 at 6391 psi (44.1 MPa) load up to 400°C | <3% for 70 lb/ft$^3$ |
| Sealability Method:<br>Mod DIN 3535 at 580 psi N$^2$ at 32 MPa load | <1.5 ml/min for 70 lb/ft$^3$ |
| Temperature Use Range | -400°F to 975°F (-240°C to 525°C) |
| Resistance in #3 Oil<br>Thickness increase<br>Weight change | <br><12%<br><35% |
| Resistance in #1 Oil<br>Thickness increase<br>Weight change | <br><8%<br><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)

+1 (800) 253.8003 (Toll-Free in USA) | +1 (216) 529.3777 (International)
www.neograf.com | info@neograf.com



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