

GHL-J & GHL Flexible Graphite Laminate

TECHNICAL DATA SHEET 438

Product Family - Laminates (Multi-Layer Graphite)

- GHL-A, GHL - Adhesively Bonded (GTA, GTC)
- GHA, GHA-C - Cured for Low Outgassing (GTA, GTC)
- **GHL-J, GHL - Adhesively Bonded, Inhibited (GTJ, GTB)**
- GHA-J, GHB - Cured for Low Outgassing (GTJ, GTB)

Product Overview

GRAFOIL® GHL-J flexible graphite laminate consists of multiple layers of GRAFOIL® GTJ flexible graphite. GRAFOIL® GHL flexible graphite laminate consists of multiple layers of GRAFOIL® GTB flexible graphite.

Applications

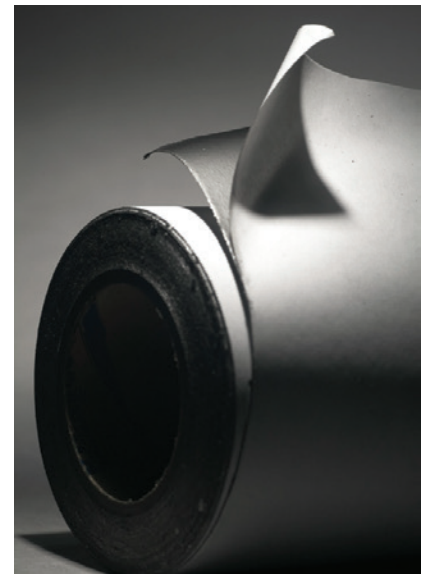
- Chemical
- Petrochemical
- Refinery
- Steam Service
- ASME class 150 & 300 Flanges

GHL-J Laminate Construction

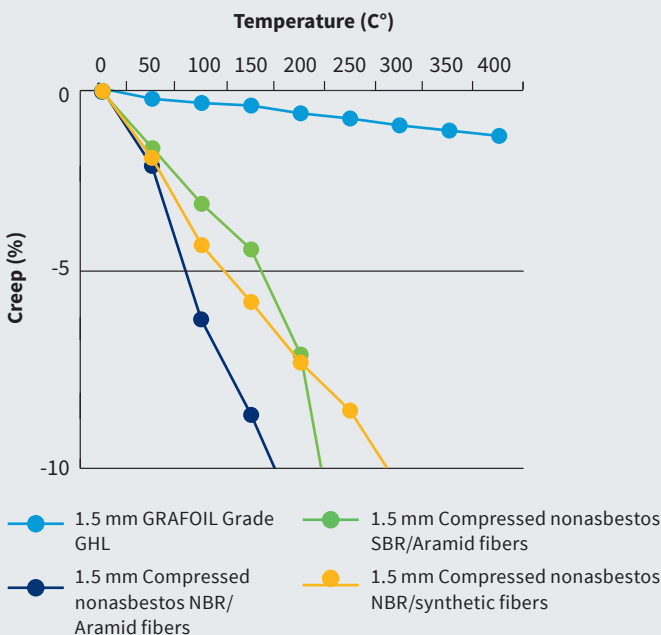
- 1) GRAFOIL® GTJ flexible graphite (per Technical Data Sheet 437)
- 2) Micro-thin, phenolic-based adhesive
- 3) GRAFOIL® GTJ flexible graphite (per Technical Data Sheet 437)

GHL Laminate Construction

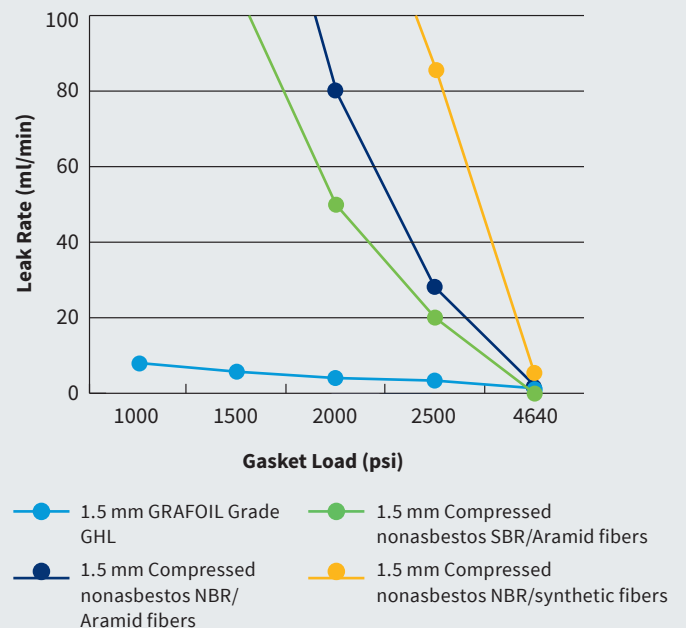
- 1) GRAFOIL® GTB flexible graphite (per Technical Data Sheet 436)
- 2) Micro-thin, phenolic-based adhesive
- 3) GRAFOIL® GTB flexible graphite (per Technical Data Sheet 436)



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 | GHL-J TYPICAL VALUE | GHL TYPICAL VALUE |
|--|--|--|
| Thickness of Laminate | 0.060" (1.52 mm) 0.120" (3.05 mm) | 0.060" (1.52 mm) 0.120" (3.05 mm) |
| Width | 24" (610 mm) 39.4" (1000 mm) for 0.060" & 0.120" thick | 24" (610 mm) 39.4" (1000 mm) for 0.060" & 0.120" thick |
| Length | 24" (610 mm) 39.4" (1000 mm) for 0.060" & 0.120" thick 100' (30.5 m) fo 0.060" thick | 24" (610 mm) 39.4" (1000 mm) for 0.060" & 0.120" thick 100' (30.5 m) fo 0.060" thick |
| Bulk Density (Graphite) | 70 lb/ft ³ (1.12 g/cc) | 70 lb/ft ³ (1.12 g/cc) |
| Compressibility at 5000 psi (35 MPa) load | 43% | 43% |
| Recovery after 5000 psi (35 MPa) load | 11% | 11% |
| Creep Relaxation Method: BSI-F125 at 6000 psi (40 MPa) loadup to 400°C | < 3% for 70 lb/ft ³ | < 3% for 70 lb/ft ³ |
| Sealability Method: Mod DIN 3535 at 580 psi N2 at 32 MPa load | < 1.5 ml/min for 70 lb/ft ³ | < 1.5 ml/min for 70 lb/ft ³ |
| Temperature Use Range | -400°F to 975°F (-240°C to 525°C) | -400°F to 975°F (-240°C to 525°C) |

Notes:

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

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