



TECHNICAL BULLETIN 438

ALL GRAFOIL® LAMINATES

STANDARD GRADES

GHL



GRAFOIL Grade GHL

GRAFOIL Grade GHL is a laminate made with GRAFOIL Grade GTB flexible graphite.

- Laminate thicknesses > 0.060" will be adhesively bonded to final thickness.
- Laminate thicknesses <= 0.060" will be adhesively bonded to achieve final thickness OR produced as single-layer to achieve final thickness.

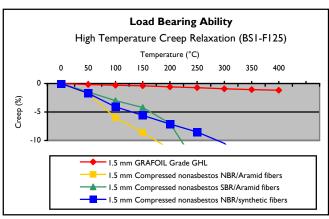
Typically, Grade GHL is used where a thick GTB material is required, often as a replacement for old style, thick gaskets or to fill gaps caused by worn, out-of-flat flanges. Surface identifiable, laminate is branded with the GRAFOIL grade and source guarantee.

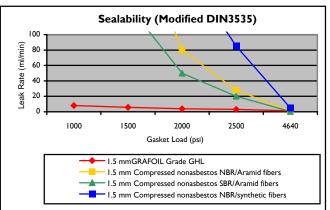
APPLICATIONS

- Grade GHL is suitable for most standard fluid sealing applications where standard GRADE GTB is too thin.
- Chemical
- Petrochemical
- Refinery
- Steam Service
- 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.





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For additional information, contact the GrafTech Sales Office: +1 (800) 253-8003 (Toll-Free in USA), +1 (216) 529-3777 (International), +1 (216) 529-3922 (Fax)



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Grade GHL Typical Properties¹

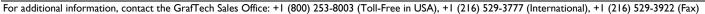
standard fluid sealing Grade GHL

Laminate Construction:

- I. GRAFOIL Grade GTB (per Technical Bulletin 436) micro-thin, phenolic-based adhesive
- 2. GRAFOIL Grade GTB (per Technical Bulletin 436)

<u>CHARACTERISTIC</u>	TYPICAL PROPERTY
Thickness of Laminate	0.030" (0.94 mm) Standard 0.060" (1.19 mm) Standard 0.120" (1.19 mm) Standard Non-standard thicknesses may be available upon request
Width	24" (610 mm) Standard Non-standard widths may be available upon request
Length	24" (610 mm) Standard 100' (30.5 m) Standard Non-standard lengths may be available upon request.
Bulk Density (Graphite)	70 lb/ft ³ (1.12 g/cc) Standard Non-standard densities may be available upon request
Compressibility at 5000 psi (35 MPa) load	43% Typical
Recovery after 5000 psi (35 MPa) load	13% Typical
Creep Relaxation Method: BSI-FI25 at 6000 psi (40 MPa) load up to 400°C	<3% Typical for 70 lb/ft3
Sealability Method: Mod DIN 3535 at 580 psi N ₂ at 32 MPa load	<1.5 ml/min Typical for 70 lb/ft3
Temperature Use Range	-400°F to 975°F (-240°C to 525°C)







¹ Properties listed are typical and cannot be used as accept/reject specifications. Specifications are listed under Technical Bulletin 207.