

GHL-A & GHC Flexible Graphite Laminate

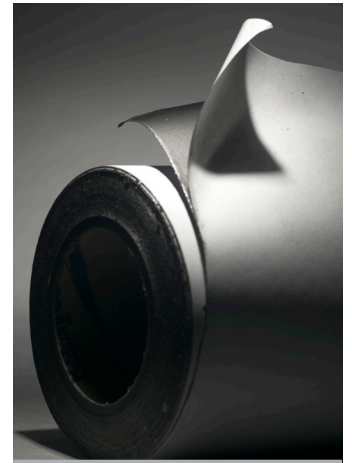
Technical Data Sheet 466

Product Family - Laminates (Multi-Layer Graphite)

- GHL-A, GHC - 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-A flexible graphite laminate consists of multiple layers of GRAFOIL® GTA flexible graphite. GRAFOIL® GHC flexible graphite laminate consists of multiple layers of GRAFOIL® GTC flexible graphite.



GHL-A Laminate Construction

- 1) GRAFOIL® GTA flexible graphite (per Technical Data Sheet 435)
- 2) Micro-thin, phenolic-based adhesive
- 3) GRAFOIL® GTA flexible graphite (per Technical Data Sheet 435)

GHC Laminate Construction

- 1) GRAFOIL® GTC flexible graphite (per Technical Data Sheet 002)
- 2) Micro-thin, phenolic-based adhesive
- 3) GRAFOIL® GTC flexible graphite (per Technical Data Sheet 002)

Typical Properties*

| Characteristic | GHL-A Typical Value | GHC Typical Value |
|----------------|--|--|
| Thickness | 0.060" (1.52 mm) 0.080" (2.03 mm) 0.120" (3.05 mm) | 0.060" (1.52 mm) 0.080" (2.03 mm) 0.120" (3.05 mm) |
| Width | 39.4" (1000 mm) | 39.4" (1000 mm) |
| Length | 39.4" (1000 mm) 100' (30.5 m) for 0.060 thick | 39.4" (1000 mm) 100' (30.5 m) for 0.060 thick |
| Bulk Density | 70 lb/ft ³ (1.12 g/cc) | 70 lb/ft ³ (1.12 g/cc) |
| Ash Content | 0.2% | 3% |
| Carbon Content | 99.8% | 97% |

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Redefining limits

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Typical Properties* (continued)

| Characteristic | GHL-A Typical Value | GHC Typical Value |
|--|----------------------------------|----------------------------------|
| Oxidation Weight Loss After 1 hour at 670°C | 12% | 12% |
| Compressibility at 5000 psi (35 MPa) load | 43% | 43% |
| Recovery after 5000 psi (35 MPa) load | 13% | 13% |
| Tensile Strength | 800 psi | 650 psi |
| Temperature Use Range | -400°F (-240°C) to 850°F (450°C) | -400°F (-240°C) to 850°F (450°C) |
| Creep Relaxation at 3000 psi (20 MPa) load for 22 hours at 100°C | < 3% | < 3% |
| Sealability ASTM F2387 580 psi N2 at 32 MPa load | 1.5 ml/min | 1.5 ml/min |
| Certification | Certify to Grade | Certify to Grade |

Notes:

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