

# GHA-J & GHB Flexible Graphite Laminate

## TECHNICAL DATA SHEET 189

### 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

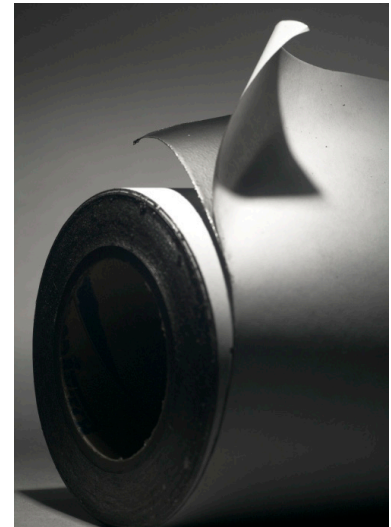
GRAFOIL® GHA-J flexible graphite laminate consists of multiple layers of GRAFOIL® GTJ cured for low outgassing in application. GRAFOIL® GHB flexible graphite laminate consists of multiple layers of GRAFOIL® GTB cured for low outgassing in application.

### GHA-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)

### GHB 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)



Typical Properties\*

CHARACTERISTIC	GHA TYPICAL VALUE	GHA-C TYPICAL VALUE
Bulk Density	70 lbs/ft3 (1.12 g/cc)	70 lbs/ft3 (1.12 g/cc)
Thickness	1/16" (1.59 mm)	1/16" (1.59 mm)
	1/8" (3.18 mm)	1/8" (3.18 mm)
Length	24" (610 mm)	24" (610 mm)
Width	24" (610 mm)	24" (610 mm)
Ash	0.3%	1.8%
Leachable Chlorides	< 10 ppm	< 10 ppm
Sulfur	450 ppm	550 ppm
Compressibility at 5000 psi (35 MPa) load	43%	43%
Recovery after 5000 psi (35 MPa) load	15%	15%
Temperature Use Range		
In Air	-400oF (-240oC) to 975oF (525oC)	-400oF (-240oC) to 975oF (525oC)
In Vacuum or Reducing Conditions	-400oF (-240oC) to 5400oF (3000oC)	-400oF (-240oC) to 5400oF (3000oC)
Outgassing		
Total Mass Loss	< 0.01%	< 0.01%
Collected Volatile Condensable Materials	< 0.01%	< 0.01%
Water Vapor Regained	< 0.01%	< 0.01%

Notes:

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

\*\* Other thicknesses and density combinations are available on a special order basis.

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