



GES, INC.

A FAMILY OF GRAPHITE AND CARBON COMPANIES

ULTRA THIN GRAPHITE SHEET

GRAPHITE ELECTRODE SALES, INC.



“Quality, Service, and Consistency.”

Graphite Electrode Sales has more than 50 years experience and is the leading distributor of graphite and carbon products in the Americas. In addition, we offer many value added services including: warehousing, anti-ox coatings, re-packaging, and technical service. At GES, we guarantee and stand behind the quality of our products. We look forward to doing business with you in the future.

GRAPHITE SHEET OVERVIEW

Our GTS series graphite sheet can be used in many applications requiring low contact resistance and high thermal conductivity. The material is used as a heat spreader and heat shield that has a variety of thermal conductivities depending on the thickness of the material. The graphite sheet can be die-cut, press-formed, or laminated with plastics, adhesives, and other materials. GES guarantees all of their materials with the highest quality.



GES Warehouse Facility in Emlenton, PA

GTS SERIES GRAPHITE SHEET SPECIFICATIONS

Grade	GTS-1000	GTS-500	GTS-250	GTS-100	GTS-25	GTS-12
Thickness (mm)	1	.5	.25	.125	.025	.012
Thermal Conductivity Through Plane-In Plane (W/m-K)	3-5 300-400	6-10 300-500	6-10 300-500	7-12 1000-1800	7-12 1000-1800	7-12 1000-1800
Bulk Density	1.0-1.2	1.2-1.4	1.4-1.5	1.5-1.6		
Carbon Content	99-99.5%			99.5-99.9%		
Hardness (Shore)	85					
CTE (10-6 m/m °C In Plane-Through Plane	-0.4 – 27.0					
Operating Temp. (°C)	-40 to +400					
Specific Heat @ 25°C (J/kg-°C)	710					

GTS Series Grade	Maximum Size
GTS-1000	1 mm x 1,500 mm x 1,000 m (rolls)
GTS-500	0.5 mm x 1,500 mm x 1,000 m (rolls)
GTS-250	0.25 mm x 1,500 mm x 1,000 m (rolls)
GTS-100	0.125 mm x 1,500 mm x 1,000 m (rolls)
GTS-25	0.025 mm x 550 mm x 1,000 m (rolls)
GTS-12	0.012 x 550 mm x 1,000 m (rolls)

* The above data should be regarded as general information, not guaranteed specification limits.

GTS ADHESIVE AND COATING OPTIONS

	Coating Options					Adhesive Options		
	GC1	GP1	GP2	GP7	GM3	GA1	GP1A1	GP8A8
Description	Acrylic	PET Film	PET Film	Temporary Liner	Aluminum Foil	Acrylic	PET Film	PET Film
Coating Thickness (mm)	0.013	0.025	0.012	N/A	0.152	0.013	0.038	0.012
Release Liner Thickness(mm) Type	N/A	N/A	N/A	0.05 PET	N/A	0.08 Paper	0.08 Paper	0.08 Paper
Dielectric Strength (V)	N/A	2,800	200	N/A	0	-	2,800	900
Operating Temperature (°C)	-40 to +180							
Thermal Contact Impedence (°C-cm ² /W) per side	-	1.6	0.32	N/A	-	0.16	-	0.42
Thermal Conductivity Through Thickness (W/m-K)	-	0.16	0.16	N/A	210	-	0.16	0.16

Die Cut Options		
	(Blank)	EN
Description	Flush Edge Cut	Envelope Seal

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SERVING THE AMERICAS



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GES Brazil, Inc.



South America Presence

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