

# GRAFTech International

## CSX™ Graphite

GrafTech International is a global leader in graphite and carbon products. We enable customer leadership better and faster than our competition, through the creation, innovation and manufacture of carbon and graphite material science based solutions.

### Grade CSX™ Graphite

Densified prior to graphitization, grade CSX™ graphite is higher in strength and lower in permeability than CS™ graphite. It is a material for applications requiring higher densities, better mechanical properties, and less porosity than the CS™ material. Grade CSX™ graphite has a particularly low ash content which enhances its oxidation resistance.

### Typical Applications

- Casting molds and furnace parts for hot metal
- Powder metallurgy
- Boats and trays for sintering applications
- Resistance heating
- Crucibles for melting and alloying
- Quartz processing

### Sizes

8"-13" diameter rounds  
200-330 mm diameter rounds

### Typical Properties at Room Temperature

	<u>ENGLISH</u>	<u>WG</u>	<u>AG</u>	<u>METRIC</u>	<u>WG</u>	<u>AG</u>	<u>SI</u>	<u>WG</u>	<u>AG</u>
Density	lbs/ft <sup>3</sup>	111		g/cm <sup>3</sup>	1.78		g/cm <sup>3</sup>	1.78	
Maximum Particle Size	Inches	0.030		mm	0.76		mm	0.76	
Specific Resistance	10 <sup>-4</sup> Ω in.	2.8	3.5	μΩm	7.0	9.0	μΩm	7.0	9.0
Flexural Strength	psi	3480	2900	kg/cm <sup>2</sup>	245	204	MPa	24	20
Young's Modulus	10 <sup>6</sup> psi	1.59	1.20	kg/mm <sup>2</sup>	1118	844	GPa	11.0	8.3
Tensile Strength	psi	2755	2175	kg/cm <sup>2</sup>	194	153	MPa	19	15
Compressive Strength	psi	7974	7974	kg/cm <sup>2</sup>	561	561	MPa	55	55
Permeability	Darcy	0.002	0.002	Darcy	0.002	0.002	Darcy	0.002	0.002
Hardness	Rockwell "R"	93		Rockwell "R"	93		Rockwell "R"	93	
C.T.E. (to 100 °C)	10 <sup>-6</sup> /°F	1.4	2.0	10 <sup>-6</sup> /°K	2.5	3.6	10 <sup>-6</sup> /°K	2.5	3.6
Thermal Conductivity	BTU-ft/hr ft <sup>2</sup> °F	98	75	W/mK	170	130	W/mK	170	130
Ash Content	ppm	1200		ppm	1200		ppm	1200	

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