

Grade CSX Extruded Graphite

Since 1886, UCAR Carbon Company has been supplying quality carbon and graphite products, skilled technical service, and experienced application assistance worldwide.

Advanced Graphite Materials

GRADE CSX EXTRUDED GRAPHITE

Densified prior to graphitization, Grade CSX is extruded graphite, higher in strength and lower in permeability than CS. It is a material for applications requiring higher densities, better mechanical properties, and less porosity than CS. Grade CSX 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 ³	111		g/cm ³	1.78		g/cm ³	1.78	
Maximum Particle Size	Inches	0.030		mm	0.76		mm	0.76	
Specific Resistance	10 ⁻⁴ Ω in.	2.8	3.5	μΩm	7.0	9.0	μΩm	7.0	9.0
Flexural Strength	psi	3480	2900	kg/cm ²	245	204	MPa	24	20
Young's Modulus	10 ⁻⁶ psi	1.59	1.20	kg/mm ²	1118	844	GPa	11.0	8.3
Tensile Strength	psi	2755	2175	kg/cm ²	194	153	MPa	19	15
Compressive Strength	psi	7974	7974	kg/cm ²	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 ⁻⁶ /°F	1.4	2.0	10 ⁻⁶ /°K	2.5	3.6	10 ⁻⁶ /°K	2.5	3.6
Thermal Conductivity	BTU-ft/hr ft ² °F	98	75	W/mK	170	130	W/mK	170	130
Ash Content	ppm	1200		ppm	1200		ppm	1200	

This information is not to be taken as a warranty of representation for which we will assume legal responsibility nor permission or recommendation to practice any patented invention without license. It is offered solely for your consideration, investigation, and verification. UCAR is a registered trademark licensed for use to GrafTech International Ltd.

P.O. Box 2230, Clarksburg, WV 26302-2330
Phone 1-800-842-8805; Fax 1-304-624-1269
Rev. 12.04

P.O. Box 10, F.73264 Aigueblanche Cedex, France
Phone +33 4 79 22 32 22; Fax +33 4 79 22 32 01



www.graftech.com

Copyright 2003 GrafTech International Ltd.