



GRAFSTAR™ SLX Grade Graphite

Technical Data Sheet 5029

Product Overview

GRAFSTAR™ SLX graphite is a medium grain graphite with high strength properties that excels in higher temperature applications.

SLXW™ graphite is a post purified version of SLX™ graphite for applications requiring very low ash. SLXW graphite has the same properties as SLX graphite with an ash content of less than 20ppm.

Applications

- CZ silicon crystal growth
- Quartz processing
- Purified electronic fixturing
- Polysilicon seed chucks

Sizes

- 22", 24" and 26" x 72" diameter rounds
- 560, 600, 660 mm x 1800 mm rounds

Typical Properties at Room Temperature*

Characteristic	Unit	WG	AG	Unit	WG	AG	Unit	WG	AG
Density	lbs/ft ³	112		g/cm ³	1.80		g/cm ³	1.80	
Maximum Particle Size	inches	0.030		mm	0.76		mm	0.76	
Specific Resistance	10 ⁻⁴ Ωin	2.8	3.0	μΩm	7.0	7.5	μΩm	7.0	7.5
Flexural Strength	psi	3580	2955	kg/cm ²	252	208	MPa	25.2	20
Young's Modulus	10 ⁶ psi	1.59	1.35	kg/mm ²	1121	949	GPa	11.0	9.3
Tensile Strength	psi	2700	2100	kg/cm ²	190	148	MPa	19	15
Compressive Strength	psi	8300	8300	kg/cm ²	595	595	MPa	59	59
Permeability	Darcy	0.005	0.005	Darcy	0.005	0.005	Darcy	0.005	0.005
Hardness	Rockwell "R"	95		Rockwell "R"	95		Rockwell "R"	95	
C.T.E. (to 100 °C)	10 ⁻⁶ /°F	1.7	2.0	10 ⁻⁶ /°K	3.0	3.7	10 ⁻⁶ /°K	3.0	3.7
Thermal Conductivity	BTU-ft/hr ft ² °F	98	87	W/mK	170	150	W/mK	170	150
Ash Content	ppm	1500		ppm	1500		ppm	1500	

Notes:

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

