

# SLX™ Graphite

Technical Data Sheet 5029

## Product Overview

GrafTech's 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 <sup>3</sup>	112		g/cm <sup>3</sup>	1.80		g/cm <sup>3</sup>	1.80	
Maximum Particle Size	inches	0.030		mm	0.76		mm	0.76	
Specific Resistance	10 <sup>-4</sup> Ωin	2.8	3.0	μΩm	7.0	7.5	μΩm	7.0	7.5
Flexural Strength	psi	3580	2955	kg/cm <sup>2</sup>	252	208	MPa	25.2	20
Young's Modulus	10 <sup>6</sup> psi	1.59	1.35	kg/mm <sup>2</sup>	1121	949	GPa	11.0	9.3
Tensile Strength	psi	2700	2100	kg/cm <sup>2</sup>	190	148	MPa	19	15
Compressive Strength	psi	8300	8300	kg/cm <sup>2</sup>	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 <sup>-6</sup> /°F	1.7	2.0	10 <sup>-6</sup> /°K	3.0	3.7	10 <sup>-6</sup> /°K	3.0	3.7
Thermal Conductivity	BTU-ft/hr ft <sup>2</sup> °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

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**Redefining limits**