



Technical Data Sheet 5305

TS5305 Graphite

Product Overview

GRAFSTAR™ 5305 is a higher density, higher strength version of our PGX and PJPX graphite material. It has similar grain structure and dimensions.

Applications

- Fluidized bed reactors
- Centrifugal casting molds
- Large diameter molds and crucibles
- Monolithic composite tooling parts
- Induction and vacuum furnace parts
- Heat exchangers chemical process equipment

Sizes

- 36"-72" diameter rounds
- Available in 72" lengths

Typical Properties at Room Temperature*

Characteristic	Unit	WG	AG	Unit	WG	AG
Density	lbs/ft ³	109.6		g/cm ³	1.76	
Maximum Particle Size	inches	0.03		mm	0.76	
Specific Resistance	10 ⁻⁴ Ωin	3.62	3.78	μΩm	9.2	9.6
Flexural Strength	psi	2610	2415	MPa	18.0	16.7
Young's Modulus	10 ⁶ psi	1.34	1.30	GPa	9.24	8.96
Tensile Strength	psi	1840	1780	MPa	12.7	12.3
Compressive Strength	psi	7610	6880	MPa	52.5	47.4
Permeability	AFS	0.34	0.44	AFS	0.34	0.44
Thermal Conductivity	BTU-ft/hr ft ² °F	na	na	W/mK	na	na
CTE (RT to 100 °C)	10 ⁻⁶ /°F	2.54	2.59	10 ⁻⁶ /K	4.57	4.67
Ash Content	%	0.06		%	0.06	
Porosity	%	11.5		%	11.5	

Notes:

* Other sizes available upon request

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