

GRAFOAM® Carbon Foam FPA-20

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GRAFOAM® FPA-20 is a carbon foam product that has a nominal density of 20 lb/ft³. The material has unique properties such as high strength and lightweight, and is an excellent thermal insulator at temperatures up to 1000°C.

Typical Applications

- Applications in high temperature and corrosive environments
- Other applications include composite tooling, insulation, fire resistant panels and batteries

Sizes

FPA-20: 6" X 18" X 72"
Other sizes available upon request

<u>Typical Properties at Room Temperature</u>				
	<u>ENGLISH</u>		<u>METRIC</u>	
Bulk Density	lbs/ft ³	20.2	g/cm ³	0.324
CTE (30-100°C)	X 10 ⁻⁶ /°F	1.3	X 10 ⁻⁶ /°C	2.3
Specific Resistance (WR)	Ω in.	0.04	μΩm	913
Specific Resistance (AR)	Ω in.	0.03	μΩm	747
Flexural Strength (WR)	psi	175	MPa	1.2
Flexural Strength (AR)	psi	335	MPa	2.3
Young's Modulus	psi X 10 ⁶	0.29	GPa	2.00
Compressive Strength (WR)	psi	2614	MPa	18.0
Compressive Strength (AR)	psi	1897	MPa	13.1
Gas Permeability	Darcy	0.2	Darcy	0.2
Apparent Porosity	%	80	%	80
Tensile Strength (WR)	psi	666	MPa	4.6
Tensile Strength (AR)	psi	507	MPa	3.5
Thermal Conductivity (WR) (room temperature)	BTU/hr-ft-°F	0.12	W/mK	0.21
Thermal Conductivity (AR) (room temperature)	BTU/hr-ft-°F	0.12	W/mK	0.21
Shear Strength (torsional)	psi	377	MPa	2.6

Note: It is not recommended that FPA-20 be used in oxidizing atmospheres above 200°C.

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