

# Carbon Foam FPA-20

Technical Data Sheet 4059

## Product Overview

GRAFOAM® FPA-10 is a carbon foam product that has a nominal density of 20 lb/ft<sup>3</sup>. The material has unique properties such as high strength and lightweight, and is an excellent thermal insulator at temperatures up to 1000°C.

## Applications

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

## Sizes\*

- 6" X 18" X 72"

## Typical Properties at Room Temperature\*\*

Characteristic	Unit	WG	AG	Unit	WG	AG
Bulk Density	lbs/ft <sup>3</sup>	20.2		g/cm <sup>3</sup>	0.324	
CTE (30-1000°C)	10 <sup>-6</sup> /°F	1.3		10 <sup>-6</sup> /°C	2.3	
Specific Resistance	Ωin	0.04	0.03	μΩm	913	747
Flexural Strength	psi	175	335	MPa	1.2	2.3
Young's Modulus	psi x 10 <sup>6</sup>	0.29		GPa	2.00	
Compressive Strength	psi	2614	1897	MPa	18.0	13.1
Gas Permeability	Darcy	0.2		Darcy	0.2	
Apparent Porosity	%	80		%	80	
Tensile Strength	psi	666	507	MPa	4.6	3.5
Thermal Conductivity	BTU/hr ft °F	0.12	0.12	W/mK	0.21	0.21
Shear Strength (Torsional)	psi	377		MPa	2.6	

Notes:

\* Additional sizes available upon request

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

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

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**Redefining limits**