

# Duocel® Carbon Foam

*Making a Material  
Difference Since 1967*

Applications limited only by your imagination. How will you use it?

Common Applications Include:

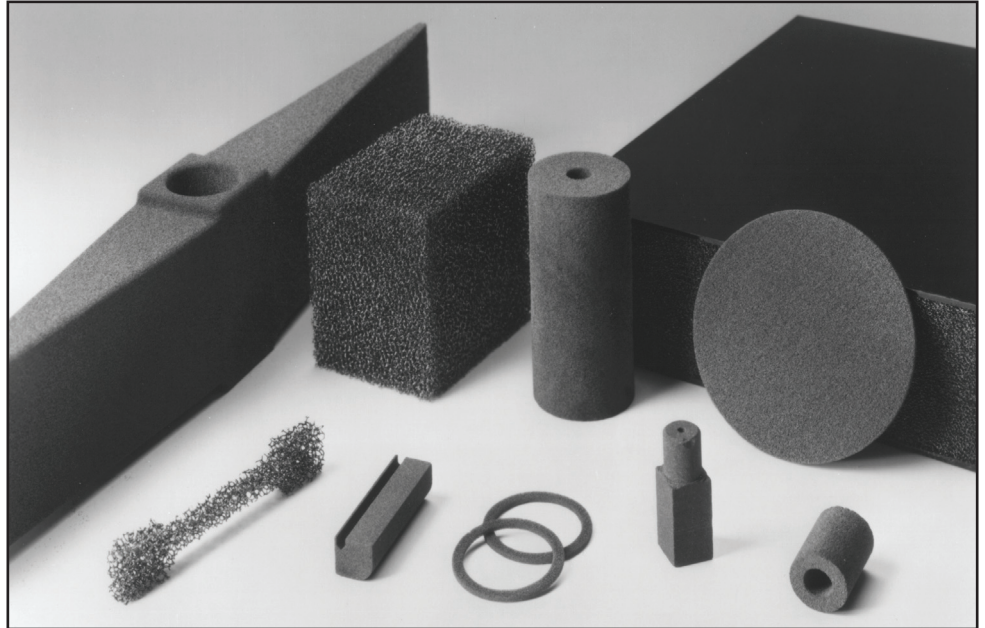
- Porous Electrodes
- High Temperature Insulation
- High Temperature Oven Racking
- Filters
- Demisters
- Storage Batteries
- Scaffolds
- Semiconductor Manufacturing
- Acoustic Control

Duocel® Materials to Consider for your Application:

- Aluminum
- Carbon
- Copper
- Inconel
- Nickel
- Silicon Carbide
- Silicon Nitride
- Tin
- Zinc

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**Characteristics of Duocel Carbon Foam (3% Nominal Density)**

Compression Strength	15-75 psi	(0.10-0.52 MPa)
Tensile Strength	25-50 psi	(0.17-0.34 MPa)
Shear Strength	4.4x10 <sup>3</sup> psi	(30.3 Mpa))
Hardness	6-7 Mohs	
Specific Heat	.3 BTU/lb °F	(1.26 J/g °C)
Shear Modulus	4.4 × 10 <sup>3</sup> psi	(30.3 MPa)
Bulk Thermal Conductivity	0.021-0.29 <sup>BTU</sup> /ft-hr °F	(0.033-0.050 <sup>W</sup> /m °C)
Coefficient of Thermal Expansion	(0-100°C) 1.2 × 10 <sup>-6</sup> in/in °F	(2.2 × 10 <sup>-6</sup> m/m °C)
	(100-1000°C) 1.8 × 10 <sup>-6</sup> in/in °F	(3.2 × 10 <sup>-6</sup> m/m °C)
Bulk Resistivity	12.7 × 10 <sup>-2</sup> ohm · in	(32.3 × 10 <sup>-2</sup> ohm · cm)
Temperature Limitations	In air 600°F	(315°C)
	Inert environment 6330°F	(3499°C)
Pore Sizes	5, 10, 20, 30, 45, 60, 80, 100	Pores Per Inch*

\*Foam can be compressed to achieve higher densities (up to ~70%) and smaller pore sizes (as high as ~500PPI)