

## Grade PGX™ Molded Graphite

Since 1886, UCAR Carbon Company has been supplying quality carbon and graphite products, skilled technical service, and experienced application assistance worldwide.

### Advanced Graphite Materials

#### Grade PGX™ Molded Graphite

Available in low ash monolithic sizes as 73" diameter, UCAR® Grade PGX has an excellent erosion resistance and thermal properties.

#### Typical Applications

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

#### Sizes

Grade PGX Molded: 36 to 73" diameter x 72" long rounds  
(36 to 55" diameter also in 42" lengths)

### Typical Properties at Room Temperature

	<u>ENGLISH</u>	<u>WG</u>	<u>AG</u>	<u>METRIC</u>	<u>WG</u>	<u>AG</u>
Density	lbs/ft <sup>3</sup>	108		g/cm <sup>3</sup>	1.73	
Maximum Particle Size	inches	0.03		mm	0.76	
Specific Resistance	10 <sup>-4</sup> Ω in.	4.0	5.4	μΩm	10.1	13.8
Flexural Strength	psi	1600	1300	kg/cm <sup>2</sup>	110	90
Young's Modulus	10 <sup>-6</sup> psi	1.0	0.7	kg/mm <sup>2</sup>	703	490
Tensile Strength	psi	1200	1000	kg/cm <sup>2</sup>	86	74
Compressive Strength	psi	4000	4100	kg/cm <sup>2</sup>	280	290
Permeability	Darcy	0.04	0.05	Darcy	0.04	0.05
C.T.E. (to 100 °C)	10 <sup>-6</sup> /°F	1.2	1.4	10 <sup>-6</sup> /°C	2.2	2.6
Thermal Conductivity	BTU-ft/hr ft <sup>2</sup> °F	72	60	W/mK	125	104
Ash Content	%	0.07		%	0.07	

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