



COORSTEK
Amazing Solutions.

CARBON GRAPHITE



SPECIALIZED CARBON GRAPHITE FOR CRITICAL COMPONENTS

CRB-100 Resin-Impregnated Carbon Graphite

General purpose CoorsTek CRB-100 material contains a chemically resistant resin offering superior performance in a wide range of media. This resin-impregnated carbon graphite provides exceptional friction and wear properties in pressed-to-size configurations for high-volume applications.

- General-duty mechanical seal material
- High-volume, pressed-to-size capability
- Low friction and wear properties

CRB-200 Resin-Impregnated Carbon Graphite for High-Duty, Extreme-Performance Applications

Designed for high-pressure, extreme-duty environments, CoorsTek CRB-200 material works especially well for mechanical seals and bearings. This low-content resin-impregnated material exhibits minimal wear and very low heat generation characteristics.

- High-duty mechanical seal and bearing material
- Low frictional characteristics
- Excellent tribological properties

CRB-300 General-Duty Carbon Graphite

Designed for general-use mechanical seals, this material displays very good blister resistance and tribological characteristics.

- General-duty mechanical seal material
- Superior blister resistance
- Available in blank form

CRB-400 Antimony-Impregnated Carbon Graphite

CoorsTek combines the frictional properties of carbon graphite with antimony metal to build a high-strength, high-performance material with superior lubrication and thermal conductivity to dissipate heat away from seal interface.

- General-duty mechanical seal material
- Excellent blister resistance
- "Built-in" lubrication

CRB-500 Medium Strength Carbon Graphite

Designed specifically for dry-running applications, CoorsTek CRB-500 material contains a film former for optimum dry-running performance.

- Medium-strength mechanical seal material
- Suited to dry-running applications
- Film-forming protection

CRB-600 Resin-Bonded Carbon Graphite

Designed for use in high-volume, general purpose applications, CoorsTek CRB-600 material employs a chemically resistant resin bonding agent for exceptionally smooth and reliable seal performance.

- Resin-bonded carbon graphite seal material
- High-volume, general-duty applications
- Chemically resistant resin as bonding agent

Call our materials experts today for more information at **501-778-6665**.

Property	Units	Test	CRB-100	CRB-200	CRB-300	CRB-400	CRB-500	CRB-600
Apparent Density	gm/cc	ASTM-C559-85	1.80	1.85	1.80	2.30	1.8	1.78
Coefficient of Thermal Expansion	mm/mm/K x 10 ⁴ (in/in/°F x 10 ⁴)	ASTM-C372	5 (2.9)	4.8 (2.8)	5 (2.9)	4.7 (2.7)	4.8 (2.8)	*
Compressive Strength	MPa (psi)	ASTM-C695-81	207 (30,000)	221 (32,000)	207 (30,000)	207 (30,000)	241 (35,000)	76 (11,000)
Elastic Modulus	psi	ASTM-C747-74	3.1 x 10 ⁶	3.3 x 10 ⁶	3.1 x 10 ⁶	3.1 x 10 ⁶	3.0 x 10 ⁶	2.0 x 10 ⁶
Flexural Strength	MPa (psi)	—	83 (12,000)	90 (13,000)	69 (10,000)	76 (11,000)	76 (11,000)	41 (6,000)
Hardness	—	Shore-Scleroscope	95	95	90	85	90	30
Maximum Use Temperature	°C (°F)	—	260 (500)	260 (500)	260 (500)	371 (700)	260 (500)	204 (400)
Maximum Grain Size	inch	—	0.004	0.003	0.003	0.003	0.003	*
Porosity	% volume	—	1	0.5	0.5	0.5	1	5
Specific Resistance	—	ASTM-C611-84	0.0018	0.0018	0.0017	0.0015	0.0019	0.008
Thermal Conductivity	W/m K (BTU/hr • ft ² • °F/ft)	—	6	5	8	10	6	*

*Data not available

Note: The chart is intended to illustrate typical properties. Engineering data is representative. Property values vary somewhat with method of manufacture, size, and shape of part. This data is not to be construed as absolute and does not constitute a warranty for which we assume legal responsibility.