

Grade CBY™ Extruded 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 CBY™ Extruded Graphite

UCAR® Grade CBY is a general purpose, cost effective extruded graphite with improved strength, structure and density characteristics. It is a low ash graphite for superior oxidation resistance.

Typical Applications

- Heat treating boats and trays
- Fused refractory molds
- Induction furnace susceptor
- Furnace parts
- Aluminum runout tables

Sizes

Grade CBY Extruded: 10 – 24 x 72" diameter rounds
 12 x 14 x 72"
 15 x 30 x 72"
 17 x 17 x 72"
 17 x 17 x 88"
 19 x 19 x 72"
 24 x 24 x 72" rectangles

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 ³ | 104 | | g/cm ³ | 1.66 | |
| Maximum Particle Size | inches | 0.03 | | mm | 0.76 | |
| Specific Resistance | 10 ⁻⁴ Ω in. | 3.2 | 3.9 | μΩm | 8.1 | 9.9 |
| Flexural Strength | psi | 2400 | 1900 | kg/cm ² | 170 | 140 |
| Young's Modulus | 10 ⁻⁶ psi | 1.32 | 0.96 | kg/mm ² | 930 | 680 |
| Tensile Strength | psi | 1950 | 1300 | kg/cm ² | 140 | 90 |
| Compressive Strength | psi | 5200 | 5350 | kg/cm ² | 370 | 380 |
| Permeability | Darcy | 0.13 | 0.16 | Darcy | 0.13 | 0.16 |
| Hardness | Rockwell "R" | 70 | | Rockwell "R" | 70 | |
| C.T.E. (to 100 °C) | 10 ⁻⁶ /°F | 1.4 | 2.0 | 10 ⁻⁶ /°C | 2.5 | 3.6 |
| Thermal Conductivity | BTU-ft/hr ft ² °F | 85 | 75 | W/mK | 145 | 130 |
| Ash Content | % | 0.07 | | % | 0.07 | |

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