

GRAFTMTech International

YBDTM Carbon

GrafTech International is a global leader in graphite and carbon products. We enable customer leadership better and faster than our competition, through the creation, innovation and manufacture of carbon and graphite material science based solutions.

YBDTM Carbon

Grade YBDTM carbon has been specifically produced for electrolysis in fluorine applications.

Typical Applications

- Anodes for fluorine cells
- Cathodes for fluorine cells
- Electrolysis involving the presence of fluorine

Sizes:

| | Standard Sizes | |
|----|-----------------|-------------------------|
| 1. | 2" x 7" x 25.5" | 51 mm x 178 mm x 648 mm |
| 2. | 2" x 8" x 25.5" | 51 mm x 203 mm x 648 mm |

Custom lengths are also available

Typical Properties (Room Temperature)*

| | <u>ENGLISH</u> | <u>WG</u> | <u>AG</u> | <u>SI</u> | <u>WG</u> | <u>AG</u> |
|-----------------------|------------------------------|-----------|-----------|---------------------|-----------|-----------|
| Density | lbs/ft ³ | 97 | | g/cm ³ | 1.55 | |
| Maximum Particle Size | Inches | 0.03 | | mm | 0.76 | |
| Specific Resistance | 10 ⁻⁴ Ω in. | 16.7 | 20.1 | μΩm | 42.4 | 51.1 |
| Flexural Strength | Psi | 2,600 | 2,350 | MPa | 18 | 16 |
| Young's Modulus | 10 ⁶ Psi | 2.0 | 1.5 | GPa | 13.8 | 10.3 |
| Tensile Strength | psi | 2,300 | 1,850 | MPa | 16 | 13 |
| Compressive Strength | psi | 6,600 | | MPa | 46 | |
| Permeability | Darcy | 0.14 | 0.10 | Darcy | 0.14 | 0.10 |
| Thermal Conductivity | BTU-ft/hr ft ² °F | 4 | 3 | W/mK | 7 | 5 |
| CTE (RT to 100 °C) | 10 ⁻⁶ /°F | 1.4 | 2.3 | 10 ⁻⁶ /K | 2.5 | 4.1 |
| Ash Content | % | 0.2 | | % | 0.2 | |
| Porosity | % | 21 | | % | 21 | |

* Please contact GrafTech for high temperature and additional properties

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