

# YBD™ Carbon

Technical Data Sheet 4050

## Product Overview

GrafTech's GRAFSTAR YBD carbon has been specifically produced for electrolysis in fluorine applications.

## Applications

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

## Sizes\*

Standard Sizes	
2" x 7" x 25.5"	51 mm x 178 mm x 648 mm
2" x 8" x 25.5"	51 mm x 203 mm x 648 mm

## Typical Properties at Room Temperature\*\*

Characteristic	Unit	WG	AG	Unit	WG	AG
Density	lbs/ft <sup>3</sup>	97		g/cm <sup>3</sup>	1.55	
Maximum Particle Size	inches	0.03		mm	0.76	
Specific Resistance	10 <sup>-4</sup> Ωin	16.7	20.1	μΩm	42.4	51.1
Flexural Strength	psi	2,600	2,350	MPa	18	16
Young's Modulus	10 <sup>6</sup> 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 <sup>2</sup> °F	4	3	W/mK	7	5
CTE (RT to 100 °C)	10 <sup>-6</sup> /°F	1.4	2.3	10 <sup>-6</sup> /K	2.5	4.1
Ash Content	%	0.2		%	0.2	
Porosity	%	21		%	21	

Notes:

\* Custom lengths also available

\*\* Properties listed are typical and cannot be used as accept/reject specifications

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**Redefining limits**

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