

# YBDX Carbon

Technical Data Sheet 4051

## Product Overview

GRAFSTAR™ YBDX carbon has enhanced properties over those of YBD carbon. YBDX carbon has higher density and mechanical properties, and lower porosity. This material is specially manufactured for electrolysis involving 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>	100		g/cm <sup>3</sup>	1.6	
Maximum Particle Size	inches	0.03		mm	0.76	
Specific Resistance	10 <sup>-4</sup> Ωin	16.7	20.1	μΩm	42.5	51.1
Flexural Strength	psi	3,300	3,000	MPa	23	21
Young's Modulus	10 <sup>6</sup> psi	2.1	1.5	GPa	14	10
Tensile Strength	psi	2,570	1,950	MPa	18.0	13.5
Compressive Strength	psi	10,400		MPa	72	
Permeability	Darcy	0.01		Darcy	0.01	
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	%	15		%	15	

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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