

# CS-31 Carbon

Technical Data Sheet 5083

## Product Overview

GRAFSTAR™ CS-31 carbon is ideal for specific customer applications requiring very high hardness, high strength, and very low thermal conductivity.

## Applications

- Anodes for electrolytic processes
- Applications that require low thermal conductivity material

## Sizes

Shape	Measurement	Unit	Size	Unit	Size
Round	Diameter	in	3 - 30 x 72	mm	76 - 762 x 1830
Rectangle	Length	in	15 x 30 x 72	mm	380 x 762 x 1830
Rectangle	Length	in	17 x 17 x 72	mm	432 x 432 x 1830
Rectangle	Length	in	17 x 17 x 88	mm	432 x 432 x 2235
Rectangle	Length	in	20 x 20 x 72	mm	508 x 508 x 1830
Rectangle	Length	in	24 x 24 x 72	mm	610 x 610 x 1830

## Typical Properties at Room Temperature\*

Characteristic	Unit	WG		Unit	AG		Unit	WG		AG
Density	lbs/ft <sup>3</sup>	101		g/cm <sup>3</sup>	1.62		g/cm <sup>3</sup>	1.62		
Maximum Particle Size	inches	0.030		mm	0.76		mm	0.76		
Specific Resistance	10 <sup>-4</sup> Ωin	16.5	19.7	μΩm	41.9	50.0	μΩm	41.9	50.0	
Flexural Strength	psi	2300		kg/cm <sup>2</sup>	160		MPa	16		
Tensile Strength	psi	1700		kg/cm <sup>2</sup>	120		MPa	12		
Compressive Strength	psi	5585		kg/cm <sup>2</sup>	390		MPa	39		
Thermal Conductivity	BTU-ft/hr ft <sup>2</sup> °F	6		W/mK	10		W/mK	10		
Ash Content	%	0.2		%	0.2		%	0.2		

Notes:

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

www.graftech.com | grafstar@graftech.com

**United States of America**  
101 N. Phillipi Pike  
Anmoore, WV 26323-0120  
Ph: +1-800-842-8805  
+1-304-624-1253

**China**  
Unit 2104 of International Capital Plaza  
1318, Sichuan Road North  
Hongkou District, Shanghai China  
Ph: +86-21-6325-8018

**Italy**  
Via Forno Allione, 2  
1-25040 Malonno, Brescia, Italy  
Ph: +39-036-463-0131

**France**  
La Lechere  
73264 Aigueblanche Cedex, France  
Ph: +33-4-79-41-45-00

**Redefining limits**