



## Technical Data Sheet 5083

# CS-31 Grade Carbon

## 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	AG	Unit	WG	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