

GRAFTech
International

GRAFSTAR™

Advanced Graphite

High strength. Low thermal expansion. Superior conductivity.



GRAFTech IS GRAPHITE

GRAFSTAR™ advanced graphite is an ideal choice for customers across multiple industries with demanding applications requiring high strength, low thermal expansion, and superior conductivity. For over 125 years, GrafTech has been continuously redefining limits with ongoing testing, grade formulation, machining, and purification to develop innovative graphite material solutions for customers in over 65 countries.

HIGH STRENGTH

Unlike most materials, the mechanical strength of graphite increases with temperature. Graphite is twice as strong at 2500°C as it is at room temperature.



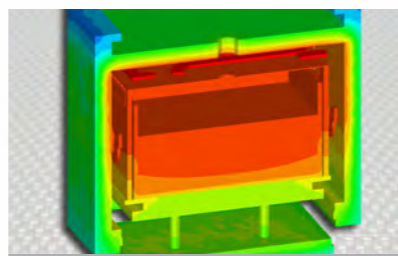
LOW THERMAL EXPANSION

Matching the coefficient of thermal expansion between materials is important for many applications. Graphite has an extremely low coefficient of thermal expansion. It can be tailored to the application by carefully selecting the formulation.



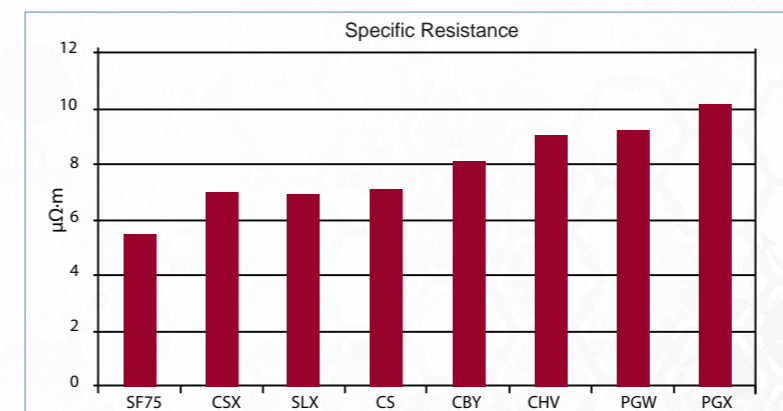
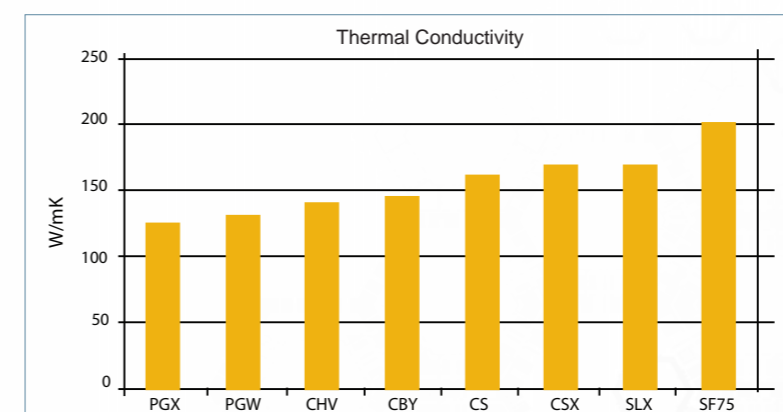
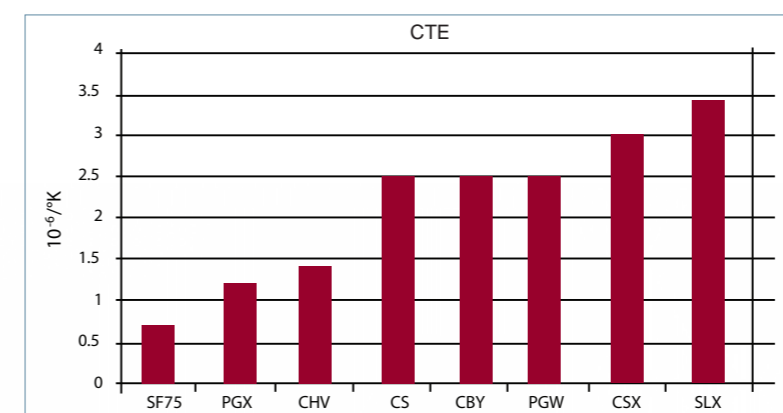
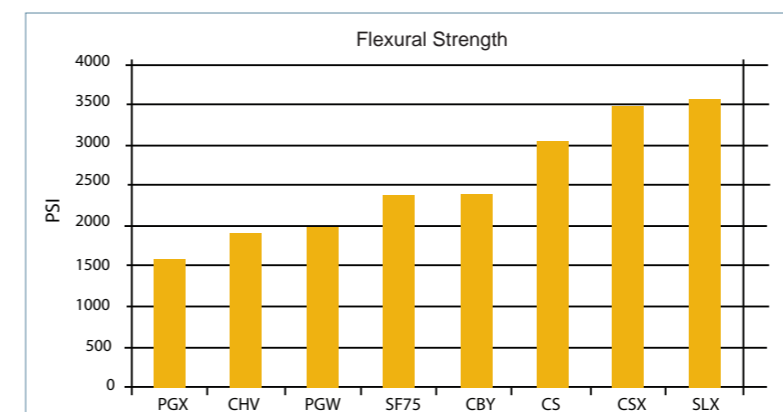
SUPERIOR CONDUCTIVITY

Graphite has a thermal conductivity of above 100 W/mK, very similar to many metals. Carbon material does not have the highly ordered crystalline structure of graphite and has a very low thermal conductivity.



CUSTOMER BENEFITS

- Improved process efficiency
- Energy savings
- Cost effectiveness
- Increased product life
- Clean processing
- Supports uniform processing
- Technical applications support



GRAPHITE'S UNIQUE PROPERTIES

- Non-reactive with most chemicals
- Stable to > 3000 °C
- High resistance to thermal shock
- Strength increases with temperature
- Machinable to close tolerances
- High thermal conductivity
- Excellent electrical conductor

UNIQUE MACHINING CAPABILITIES

GrafTech sets the industry standard in graphite, machining diameters up to 73" and larger jointed diameters upon request. Also, GrafTech provides the expertise and solutions to keep you ahead of the competition - recommending design changes to reduce machining costs and handling any CAD/Cam system in use, eliminating barriers in language and measurement systems.

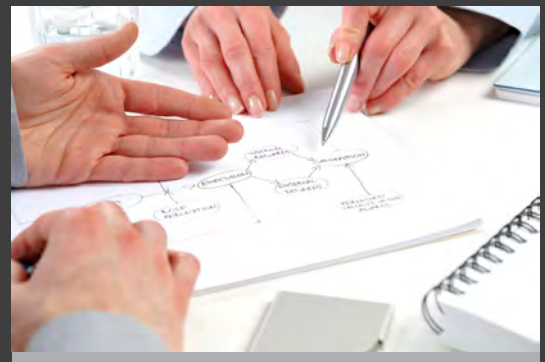


GRAFSTAR™ Advanced Graphite

Size	CBY™	CS™	CSX™	SLX™	SF75™	CHV™	PGW™	PGX™
Round (Inches)								
3-7 x 72	✓	✓	✓					
8-24 x 72	✓	✓	✓					
20-28 x 72				✓				
28-30 x 72	✓	✓	✓					
36-73 x 72			✓					✓
36-55 x 42								✓
44 x 23							✓	
44 x 32							✓	
50 x 23							✓	
52 x 23							✓	
Rectangles (Inches)								
15 x 30 x 72	✓	✓	✓					
17 x 17 x 72	✓	✓	✓					
17 x 17 x 88	✓	✓	✓					
19 x 19 x 72	✓	✓	✓					
23 x 23 x 72	✓	✓	✓		✓			
24 x 24 x 118						✓		
22 x 48 x 118						✓		

Our global team of Applications Engineers are knowledgeable about graphite and applications spanning multiple industries. These include metallurgical casting, electronics, chemical, nuclear, defense/aerospace, solar, LED, semiconductor, and other high temperature processes.

Regardless of your product design phase (concept, prototyping, or mass production), we offer technical answers to some of your most challenging problems with a fast response time.



Please contact a GrafTech Applications Engineer today at applicationsengineering@graftech.com

www.graftech.com | grafstar@graftech.com

United States of America
101 N. Philippi 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

Redefining limits

France
La Lechere
73264 Aigueblanche Cedex, France
Ph: +33-04-79-41-45-00

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