

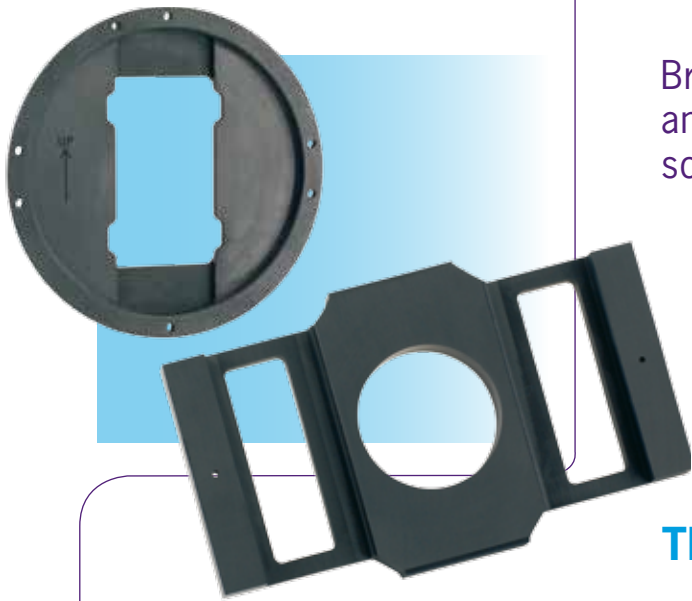
BRAZING AND SEALING JIGS AND FIXTURES

Specialty graphite materials
for brazing and glass to metal
sealing of electronic packages.



ISO 9001:2000 | ISO 14001

Jigs and Fixtures for Brazing and Glass Sealing



Brazing and Glass to Metal sealing fixtures and jigs are used to encapsulate today's sophisticated electronic packages.

Carbone Lorraine's Graphite Grades 2124, 2160 and 2175 are specially formulated to provide the ideal combination of attributes to maximize efficiency in these connection assemblies.

These critical attributes include :

- Graphite CTE matching electronic package expansion to provide tight connector tolerance requirements.
- Ability to machine intricate detail.
- Resistance to wear and oxidation resulting in extended fixture life.

Specific applications by Grade :

GRADE 2124

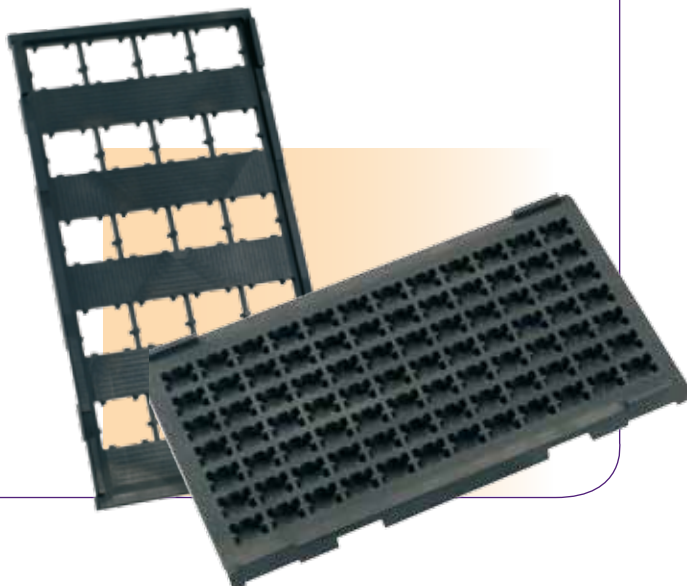
- Cost effective material for fixturing.
- Machinable to fine detail.
- Provides good oxidation and wear resistance extending fixture life.

GRADE 2160

- Higher density and finer-grain size provide longer fixture life.
- Excellent flexural strength and high hardness resist erosion in more abrasive applications.

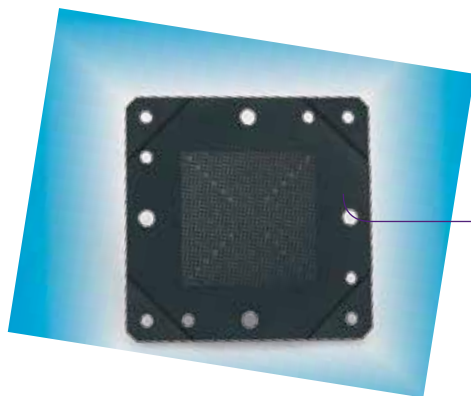
GRADE 2175

- Super-fine grain size and unsurpassed machinability provide ultimate performance in fine detail applications.
- Highest graphite CTE to meet tightest dimensional applications.
- Superior strength and hardness allow for even greater extended fixture life and excellent value.

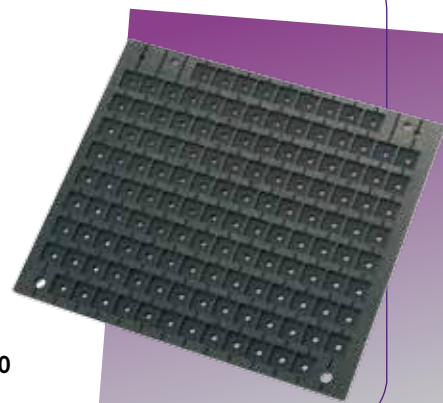
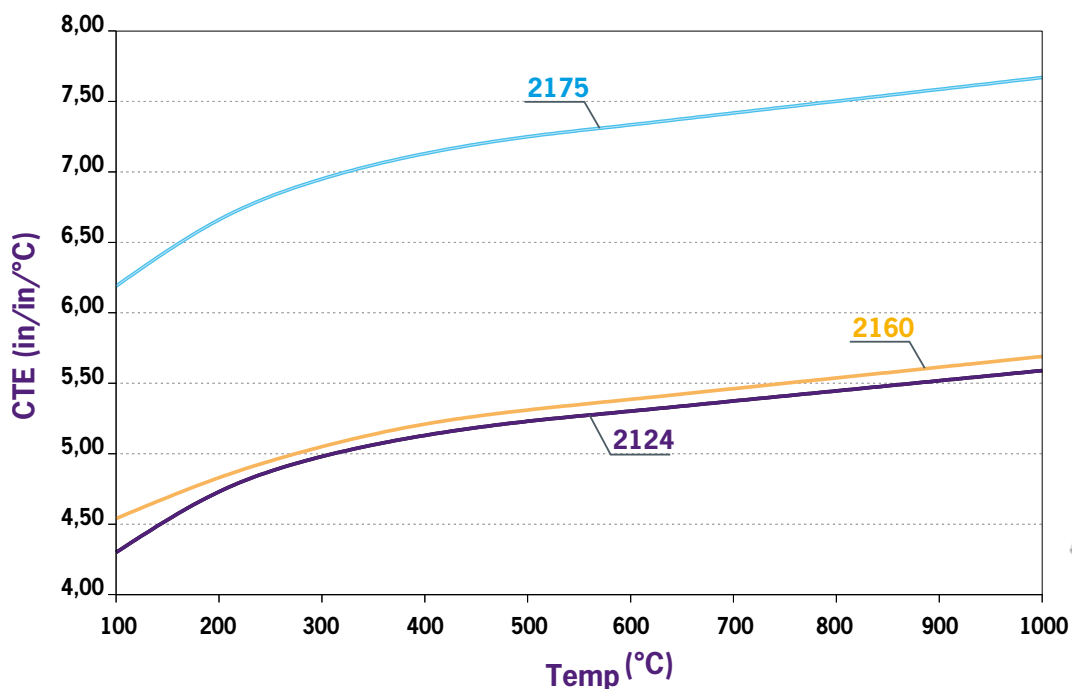


Typical Physical Properties & Block Sizes

Grade	Apparent Density	Specific Resistance	Flexural Strength	Rockwell Hardness	CTE @ 1000°C	Particle Size	Standard Block Size(s)
2124	1.84 g/cm ³ 114 lbs/ft ³	1,140 μ .cm 0.00045 .in	58 MPa 8,400 psi	80 (H) 80 (H)	5.5 x 10 ⁻⁶ /°C 3.1 x 10 ⁻⁶ /°F	13 μ 13 μ	308 x 620 x 915 mm 308 x 620 x 1,830 mm 12 x 24 x 36 in 12 x 24 x 72 in
2160	1.86 g/cm ³ 116 lbs/ft ³	1,270 μ .cm 0.00050 .in	76 MPa 11,000 psi	95 (H) 95 (H)	5.8 x 10 ⁻⁶ /°C 3.2 x 10 ⁻⁶ /°F	5 μ 5 μ	305 x 305 x 915 mm 12.5 x 12.5 x 36 in
2175	1.88 g/cm ³ 118 lbs/ft ³	1,320 μ .cm 0.00052 .in	86 MPa 12,500 psi	95 (H) 95 (H)	7.5 x 10 ⁻⁶ /°C 4,5 x 10 ⁻⁶ /°F	< 4μ < 4μ	305 x 305 x 100 mm 12 x 12 x 6 in



Coefficient of Thermal Expansion (CTE)



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CUSTOMER-ORIENTED INTERNATIONAL NETWORK



PARTNER IN INNOVATION

Carbone Lorraine harnesses prime expertise in industrial applications to deliver innovative solutions — involving graphite, other high-performance materials, and key components for electric motors and electronic equipment – for many high-technology markets.

As world number-one in its main business specialities, Carbone Lorraine fields an extensive industrial and commercial network covering around 40 countries, working hand in hand with its clients to pursue permanent innovation through a broad range of top-class products and services.



Contact for America
CARBONE OF AMERICA IND. CORP.
Graphite Materials Division
215 Stackpole Street
St. Marys, PA 15857-1488 - USA
Tel. : +1 814 781-1234
Fax : +1 814 781-8570
www.carbone-ht.com

Contact for Europe
CARBONE LORRAINE COMPOSANTS
41 rue Jean Jaurès - BP 148
F-92231 GENNEVILLIERS CEDEX
FRANCE
Tel. : +33 (0)1 41 85 45 14
Fax : +33 (0)1 41 85 43 53
semicon@carbonelorraine.com

Contact for Asia
CARBONE LORRAINE KOREA Co. Ltd.
Eden Bldg, 4 Fl. 1579-1
Secho-Dong, Seocho-ku
137-850 SEOUL,
SOUTH KOREA
Tel.: +82 2-598-0071
Fax: +82 2-598-0075

www.carbonelorraine.com