東海

Tokai

Furnace Furniture

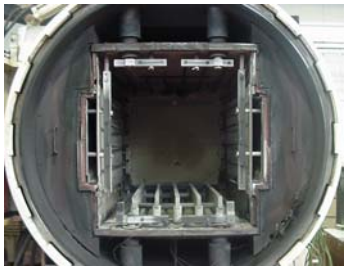
The properties of graphite make it an ideal material for components which are used inside vacuum furnaces.

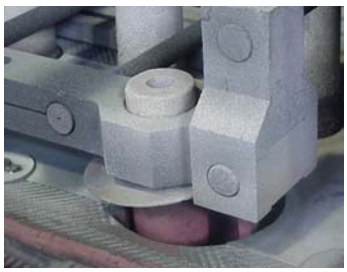
In the case of furnace elements, graphite's excellent electrical characteristics and machinability means that complex shapes can be formed that provide the necessary power to heat the furnace.

In the production of hard metals, graphite's resistance to attack and stability at high temperature ensures that the final product meet its specification.

Vacuum brazing of components is carried out under strictly controlled conditions in the furnace. Parts have to be held within close tolerances and be heated with no distortion at all. Jigs and fixtures need to be made from a material with exceptional thermal properties, strength at high temperatures and high abrasion resistance.

Graphite is the preferred material. For those applications where graphite is unsuitable Silicon Carbide parts are available through TKK (Tokai Konetsu Kogyo).





Tokai Carbon Europe Ltd, Roway Lane, Oldbury, West Midlands B69 1TZ, United Kingdom
t:+44(0)1215525577 **f:**+44(0)1215526748 **url:** **www.tokaicarboneurope.com**
Company no : 3734829

Typical Application Chart

Typical Application	Type of Graphite	
	Extruded	Isotropic
Heating Elements Furnace Furniture Furnace Linings	FE250 EE250/EE550 G140/EE550	G330 G347
Boats Sinter Trays Crucibles Large Crucibles	FE250 EE250 EE200/EE550 G140	G330 G347 G348 G530
Silicon Crystal Growth Heaters Crucibles Heat Shields Susceptors for Epitaxy	G140	G330S G347, G348 G330S, G347S SiC Coated Graphite

Typical Properties Chart for Furnace Furniture

Grade	Density (g/cm^3)	Specific Resistance ($\mu\Omega m$)	Flexural Strength (Mpa)	C.T.E ($x10^{-6}/^{o}C$)
FE250	1.75	8	24.5	3.3
FE550	1.75	9	32	3.9
G140	1.70	8.5	15.7	3.8
G330	1.79	13	39.2	4.8
G347	1.85	11	49	5.5
G330S	1.79	13	39.2	4.8
G458S	1.86	9.5	53.9	4.4

Tokai Carbon Europe Ltd, Roway Lane, Oldbury, West Midlands B69 1TZ, United Kingdom
t:+44(0)1215525577 f:+44(0)1215526748 url: www.tokaicarboneurope.com
Company no : 3734829