

# 東海

## Tokai

### Glass Industry

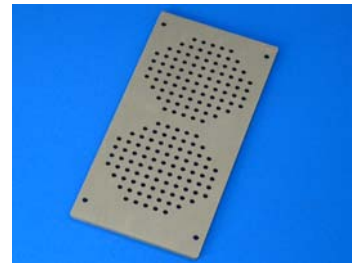
Since glass was first discovered, carbonaceous materials have been used to handle and shape it from the molten form into useable items.

Modern day bottle and container producers require materials that are abrasion resistant and have thermal properties that do not cause defects in the final product.

Graphite is used extensively for ware handling parts such as dead plates, sweep outs and stacker bars and much closer to the glass furnace for guide tubes and gob deflectors.

In the decorative glass industry, blow moulds used to make a wide variety of glassware are made from graphite. In this case it is the thermal properties and the ease of machining complex forms that make graphite the ideal material.

Tokai Carbon has a range of graphites called Glasscarb that are most suitable for all of these applications.



## Typical Application Chart

<i>Typical Application</i>	<i>Recommended Glasscarb Grade</i>
<b>Moulds-Fine Detail</b>	<b>330</b>
<b>Moulds-General</b>	<b>250 &amp; 140</b>
<b>Glass to metal sealing jigs</b>	<b>330</b>
<b>Dead Plates &amp; Sweepout Plates</b>	<b>348</b>
<b>Hot End Ware Handling</b>	<b>535</b>
<b>Mandrels-Quartz</b>	<b>348</b>
<b>Mandrels-General</b>	<b>330</b>
<b>Conveyor Roller Bearings</b>	<b>540</b>
<b>Paddles</b>	<b>250 &amp; 140</b>

## Typical Properties for Glasscarb Grades

<i>Grade</i>	<i>Density (g/cm<sup>2</sup>)</i>	<i>Thermal Conductivity (W/mK)</i>	<i>Flexural Strength (Mpa)</i>	<i>C.T.E (x10<sup>-6</sup>/°C)</i>
140	1.70	145	15.7	3.8
250	1.75	174	24.5	3.3
330	1.79	104	39.2	4.8
348	1.92	128	63.7	5.5
535	1.82	81	63.7	5.5
540	1.85	93	88.2	5.5

