東海

Tokai

Continuous Casting

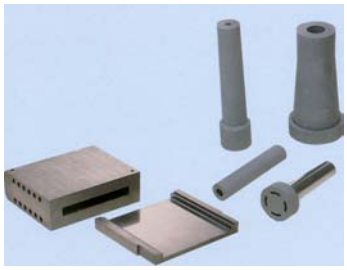
The continuous casting process converts ingots, and or scrap metal, by melting and casting into a “semi finished” section.

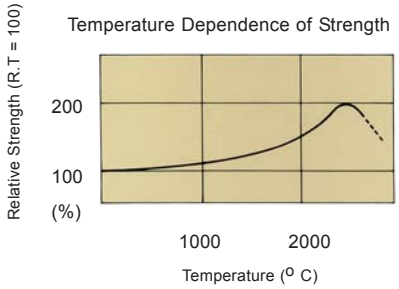
The process can be used for ferrous, non ferrous and precious metals, producing a cast section close to the finished product required. This means that further operations necessary to make the final shape are minimised.

The casting die incorporates a graphite lining that is essential to the process. The properties of graphite make it the ideal material for continuous casting dies because:

1. It is non-wetted by most metals
2. It’s strength increases with increasing temperature
3. It’s high thermal conductivity ensures good heat extraction away from the metal
4. It’s possible to produce complex machined shapes with ease
5. It has a high resistance to thermal shock

Tokai Carbon has a wide range of graphites with specifications suitable for all continuously cast alloys.





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Typical Application Chart

Copper Alloys Bronzes – G330, G348 Brasses – G347, G348, G468 Nordic Gold – G348 ETP Copper – G330 Nickel Silver – G348, G468 Copper Nickel – G348	***Aluminium Alloys*** Rolling Slab – G347 Extrusion Billet – G347 Forging Billet – G347
Ferrous Alloys Grey Iron – G330 SG Iron – G330	***Precious Metals*** Gold - G347 Silver - G347 Platinum – G347

Typical Properties for Continuous Casting

Grade	*Density (g/cm^2)*	*Thermal Conductivity (W/mK)*	*Flexural Strength (Mpa)*	*Hardness (Shore)*
G330	1.79	104	39.2	56
G347	1.85	116	49	58
G348	1.92	128	63.7	68
G468	1.87	140	55	54.9

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