

1200 degree oxidation / non-oxidation
crucible project

JH military
technical support

Traditional crucible material characteristics:

Ordinary crucible is not anti-oxidation, water absorption, fragile, large temperature cracks.

Silica crucible Material characteristics:

- 1, long life: 1200 degrees below the long-term use, no oxidation or oxidation rate is very low
- 2, non-absorbent, the surface of the glass phase protective film.
- 3, from 1200 degrees under the environment directly removed to room temperature, not broken, no cracks.
- 4, does not introduce any harmful metal elements, carbonation effect is more ideal.

1200 degree high oxidation crucible

- The process uses high-quality silicon crystals and carbon, graphene, nanotubes and other materials in accordance with a fixed ratio of mixing, using special molding process, and then after high temperature treatment, surface modification.



Outstanding advantage one:

- High oxidation resistance:
 - 1200 degrees below the temperature can be used year round, not oxidation.
 - Conventional crucible material can not be used for 90 days at 1200 ° C.
 - Experimental conditions 1200
 - degrees temperature, through the
 - oxygen experiment
 - 50 times, no oxidation loss.



Outstanding advantage two:

Great temperature difference is not broken, no cracks, heat fast:

From 1200 degrees through the oxygen muffle furnace at high temperature, directly into the room temperature, rapid cooling, 1 hour temperature from 1200 degrees to take room temperature down to 120 degrees.

1, fast heat conduction, heat fast.

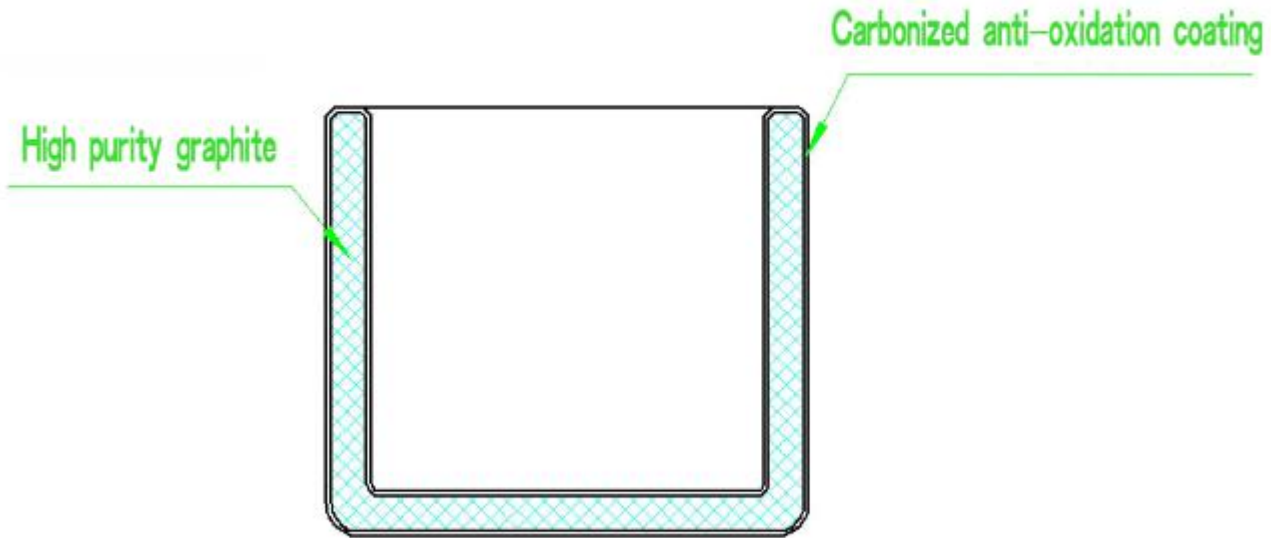
2, huge temperature difference is not damaged, no cracks. 3, weight loss 30 times no change.。



Highlight the advantages of three:

| source | Ca | Cu | S | Fe | Mg | Si | Al | Ni | Sb | Cr | Zn | Pb |
|---|-------------|--------------|--------------|-------------|-------------|--------------|-------------|-------------|-------------|--------------|--------------|--------------|
| Customer standard | 14.43 | 0.218 | 25.80 | 9.52 | 7.94 | 0.823 | 2.52 | 0.67 | 0.14 | 0.158 | 4.63 | -0.19 |
| Conventional crucible | 3.91 | 0.156 | 3.69 | 9.753 | 4.789 | -0.17 | 4.075 | 0.296 | 0.547 | 0.21 | -0.37 | 0.014 |
| Silicon carbon dialysis crucible | 3.32 | 0.113 | -0.34 | 7.91 | 3.68 | -0.38 | 2.98 | 0.25 | 0.15 | -0.01 | -0.47 | -0.08 |

Silicified graphite circular crucible structure diagram



Siliconized anti-oxidation coating characteristics

- 1、power ups
- 2、 Strong resistance to oxidation