

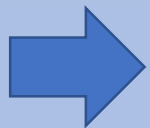
# Shanghai Yunnuo Industrial Co., Ltd.

**Address: Room 301, No. 109, Lane 501, Bijiang Road, Minhang District, Shanghai. Post code: 200240**

**Homepage: [www.yunnuoindustrial.com](http://www.yunnuoindustrial.com) Email: [scott@yunnuoindustrial.com](mailto:scott@yunnuoindustrial.com) Tel: 13310127387**



# Catalog



**ABOUT US  
PRODUCTS  
MATERIAL  
CONTACT US**



# About us

**Shanghai Yunnuo Industrial Co., Ltd. is located in Shanghai, China. Our team at yunnuo has the experience to assist you in producing the required items made of hard metal and technical ceramic that will fulfill your most stringent requirements. Our main products are as follows:**

**Industrial ceramic products: ( $Al_2O_3$ ) alumina ceramics, ( $ZrO_2$ ) zirconia ceramics, ( $MgO$ ) magnesium oxide ceramics, ( $SiC$ ) silicon carbide ceramics, steatite ceramic, mullite ceramic, cordierite, boron nitride, machinable ceramics, mica and other custom-made ceramics, etc. These are widely used in factories, research institutes, and other enterprises and institutions.**

**Tungsten carbide (WC) products: Wolfram Carbide molds, balls, rods, strips, plates; cutters, drills, boring tools, etc.; we can also customize according to customers' requirements and drawings. These hard metal items are widely used in metallurgy, machinery, geology, coal, petroleum, chemical and so on.**

**Our company's business philosophy: integrity, efficiency, innovation, transcendence, and win-win. Our company is to focus on the needs of customers, all for the sake of customers, in the principle of good faith, we provide professional, efficient, high-quality services, constantly innovate in technology and products, surpass ourselves, strive for excellence, and achieve a win-win situation.**

# Industrial ceramic products

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## Material as below:

Alumina (Al<sub>2</sub>O<sub>3</sub>)

Aluminium Nitride (AlN)

Aluminium Silicate

Fused Silica

Magnesium Oxide (MgO)

Mullite (Pythagoras)

Boron Nitride (BN)

Silica Zircon

Silicon Carbide (SiC)

Silicon Nitride (Si<sub>3</sub>N<sub>4</sub>)

Steatite

Zirconia (ZrO<sub>2</sub>)

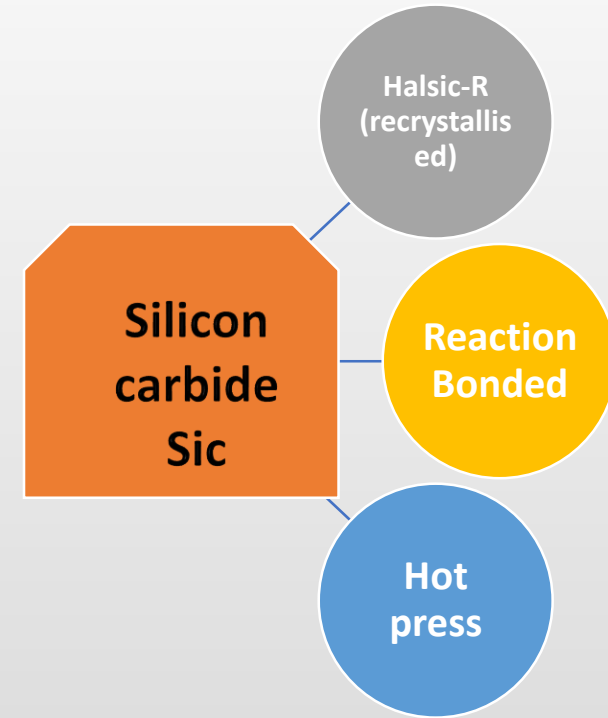
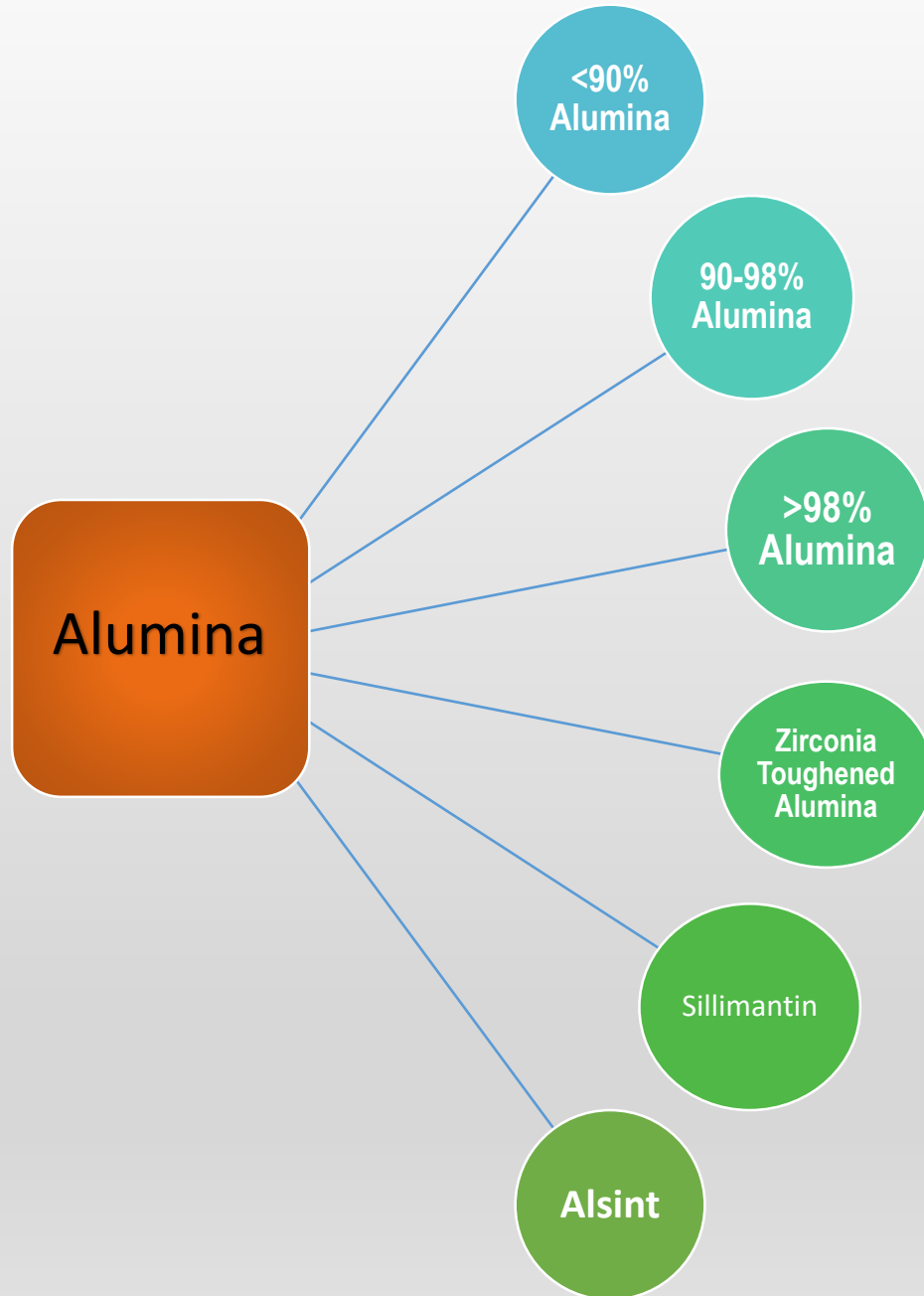
Cordierite

Porcelain

Pyrophyllite

Macor

Others



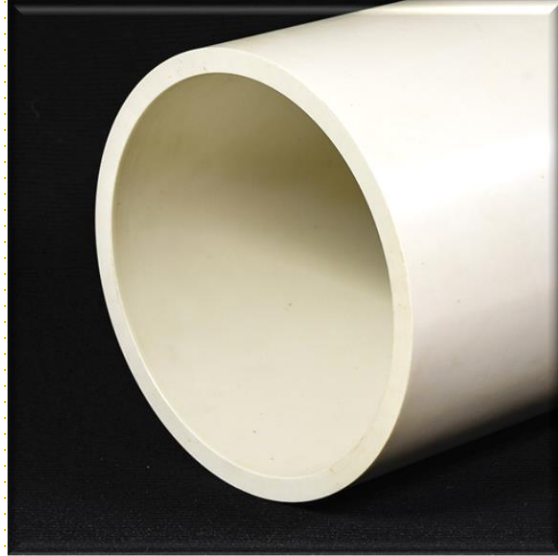
**Zirconia including  
Magnesia (MgO) stabilised zirconia  
Yttria (Y<sub>2</sub>O<sub>3</sub>) stabilized zirconia  
Calcia (CaO)stabilized Zirconia**

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**Al<sub>2</sub>O<sub>3</sub> tubing**



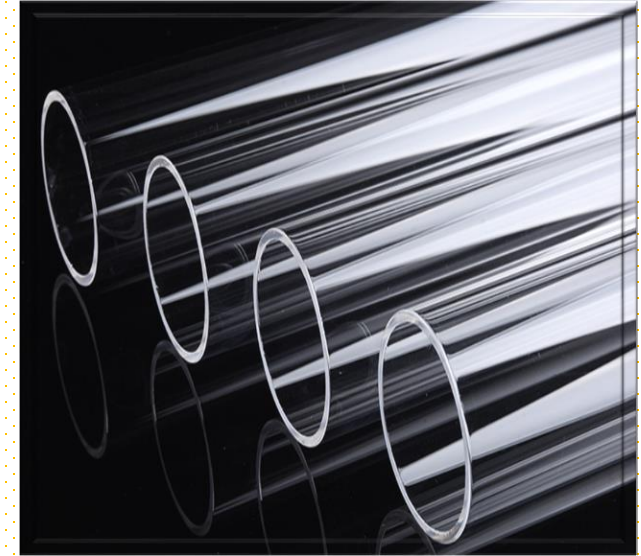
**Yttria-stabilized zirconia**



**Aluminum silicate tube**



**Quartz tube**



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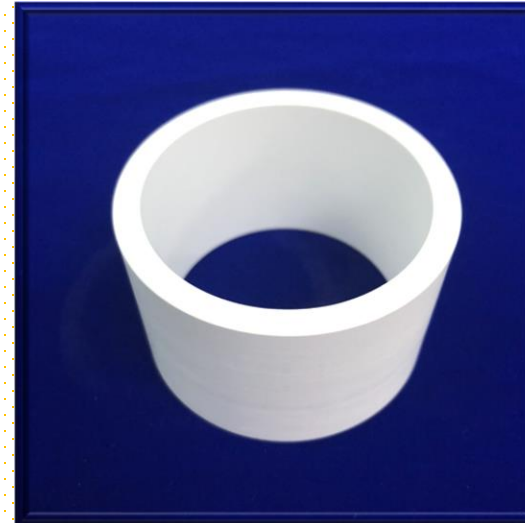
**Mgo tube**



**Mullite tube**



**BN tube**



**SiC tube**



**Si3n4 tube**



**Steatite tube**



**Cordierite tube**



**Macor tube/sleeve**



**Porcelain tube**



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# Specification of al2o3 tube

## 1. Protection tube

OD	4	5	6	6.35	8	9.525	10	12	12.7	13	14	15	16
ID	2.5	3	4	4.8	5~6	6.35	6~7	8~9	9.525	8~9	10	10~11	10~12

OD	17	17.45	18	19	19.05	20	22	24	25	26	27	30
ID	12~13	11.125~13	12~14	15	12.7	15	17	18	19	20	20	23

**Length can be from 10-2500mm,we can also produce.**

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## 2. Insulation tube or Insulator

Shape	Round single hole								Round two holes			
OD	1	1.5	2	3	4	5	6	8	1	1.6	2	3
ID	0.5	0.6	1	2	2	3	4	5	0.2	0.3	0.5	0.7
L	10~2500											

Shape	Round two holes					Round four holes							
OD	4	5	6	8	12	1.6	2.5	3	4	6	8	10	12
ID	1	1.2	1.5	2	4	0.35	0.5	0.5	0.8	1.5	2	2	3.5
L	10~2500												

## 3. Furnace tube

OD	25~30	31~40	41~50	51~60	61~70	71~80	81~90	91~100
ID	19~23	24~32	33~40	41~50	51~60	61~70	71~80	81~90
L	200~2000							

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## Test certificate of 95% and 99.7% high alumina thermocouple tube

AL2O3%	95	99.7
Bulk Density (g/cm <sup>3</sup> )	3.7	3.91
Flexural strength (MPa)	304	370
Linear expansion coefficient (×10 <sup>-6</sup> /C)(×10 <sup>-6</sup> /C)	7.3	7.6
Thermal conductivity [w/(m.R)]	20	35
Dielectric strength (KV/mm)	10	10
Volume resistivity (Ω.cm) 20C	>10 <sup>14</sup>	>10 <sup>14</sup>
Max C	1600	1800
Moh's hardness	8.8	9
Refractoriness	2000	2040

# Crucibles

Please contact us: [scott@yunnuoindustrial.com](mailto:scott@yunnuoindustrial.com)



**Al<sub>2</sub>O<sub>3</sub> crucible  
Low form**



**Cylindrical alumina  
crucible**



**Al<sub>2</sub>O<sub>3</sub> boat tray**



**Alumina boat with  
round bottom**



**BN crucible and  
boat tray**



**Fused silica  
crucible**



**MgO crucible**



**ZrO crucible**



**Porcelain crucible**

# Size of crucible

## Size of Cylindrical alumina crucible

Item No.	Volume ml	OD mm	H mm	Item No.	Volume ml	OD mm	H mm	Item No.	Volume ml	OD mm	H mm	Item No.	Volume ml	OD mm	H mm
1	0.5	5	4	20	50	40	50	39	400	70	120	58	5100	145	355
2	0.6	5	6	21	60	27	130	40	600	100	100	59	5200	220	150
3	0.7	7	4.6	22	60	40	70	41	650	120	60	60	5800	170	285
4	1	33	5	23	70	50	60	42	800	115	110	61	7200	210	230
5	1	11	20	24	80	75	27	43	1000	115	110	62	7200	230	160
6	3	16	28	25	120	60	70	44	1200	150	50	63	10000	280	190
7	5	28	17	26	120	90	35	45	1500	85	300	64	12000	300	180
8	5	14	44	27	120	50	80	46	1300	100	195	Remarks:we can produce to your order!			
9	8	16	56	28	130	55	75	47	1900	120	200				
10	10	20	50	29	150	50	100	48	2000	150	120				
11	10	30	28	30	200	60	100	49	2100	115	200				
12	10	16	70	31	200	30	200	50	2600	155	155				
13	20	35	30	32	250	60	120	51	3200	140	240				
14	30	40	35	33	250	94	50	52	3400	130	300				
15	40	40	40	34	300	36	200	53	3800	150	250				
16	40	35	58	35	300	70	100	54	4000	170	190				
17	45	35	70	36	300	75	90	55	4100	140	310				
18	50	38	62	37	300	80	80	56	4700	220	135				
19	50	30	100	38	300	95	60	57	5100	250	190				

## Arc shape alumina crucible

Item No.	Volume ml	OD at top mm	H mm	OD at bottom mm	Item No.	Volume ml	OD at top mm	H mm	OD at bottom mm
1	3	20	16	17	19	300	96	85	60
2	5	33	28	25	20	500	111	115	74
3	10	36	34	26	21	500	85	145	55
4	10	30	36	24	22	750	113	140	73
5	15	40	36	37	23	750	100	160	60
6	20	42	38	30	24	1000	125	145	75
7	25	45	45	30	25	1250	130	145	85
8	30	46	40	26	26	1500	130	150	85
9	30	38	45	25	<b>Remarks:we can produce to your order!</b>				
10	40	53	43	31					
11	40	40	40	25					
12	40	47	45	32					
13	50	55	50	32					
14	70	56	56	34					
15	100	66	64	44					
16	150	77	63	39					
17	200	82	70	43					
18	250	90	76	53					

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## Size of alumina boat tray

Item No.	Shape	Length*width*height	Item No.	Shape	Length*width*height	Item No.	Shape	Length*width*height
1	Rectangle	50*10*10	18	Step	30*20*15	33	Rectangle,with hole	73*30*22
2		50*20*20	19		60*17*10	34		100*24*17
3		50*40*20	20		60*30*15	35		100*27*27
4		55*25*15	21		120*30*15	36		103*28*30
5		52*25*23	22		100*77*27	37		100*43*25
6		60*30*20	23		125*105*20	38	100*56*35	
7		60*50*13	24	Boat,with hole	40*10*7	39	Round bottom	50*40*20
8		100*20*10	25		77*13*8	40		60*30*20
9		100*20*20	26		88*15*9	41		60*54*24
10		100*30*20	27		95*16*11	42		100*20*20
11		80*40*20	28		97*17*12	43		100*30*20
12		100*40*20	29	Square	70*70*30	44		100*40*20
13		90*60*20	30		80*80*40	45		100*50*30
14		120*60*20	31		100*100*30	46		150*40*20
15		100*50*30	32		115*115*60	47		250*40*18
16		120*80*40				48		290*40*20
17		130*110*95			49			

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**Mill jars:**



**Ceramic rapid mill pot**



**99% alumina grinding jar**



**Teflon (PTFE) milling jar**



**99% alumina planetary jar**



**Agate jar**



**NC Nylon jar**



**ZrO<sub>2</sub> jar**

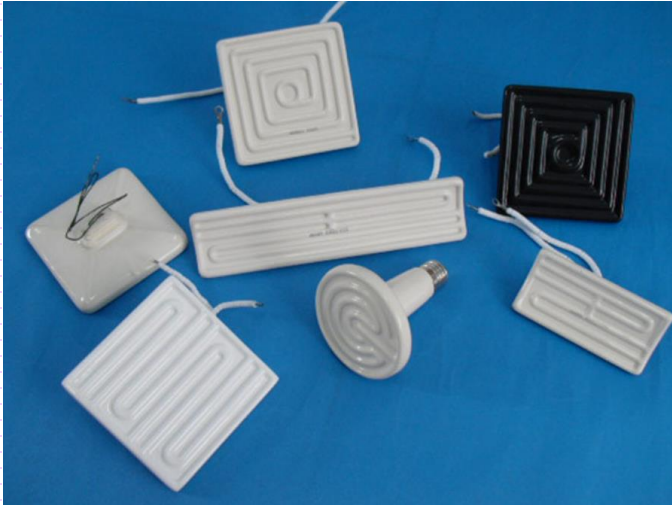


**Polyurethane jar**

# Industrial Heaters

Please contact us: [scott@yunnuoindustrial.com](mailto:scott@yunnuoindustrial.com)

## 1. Ceramic IR heater panel



Size(mm)	Shape	Power(W)	Size(mm)	Shape	Power(W)
290*95	curve	800	60X60	flat	100-500
245 x 110	curve	1000	120x120	flat	100-800
245*80	curve	1400	240x60	flat	250-1000W
195x95	curve	1000	120x60	flat	100-325
245x65	curve	250-1000	140x140	flat	1600
240x60	curve	500-1000	140*150	flat	1600
120x60	curve	100-500	150x170	flat	1800
125x65	curve	200-500	200x200	flat	1000
120x60	arc	100-500	250x140	flat	100-800
60X60	arc	100-500			

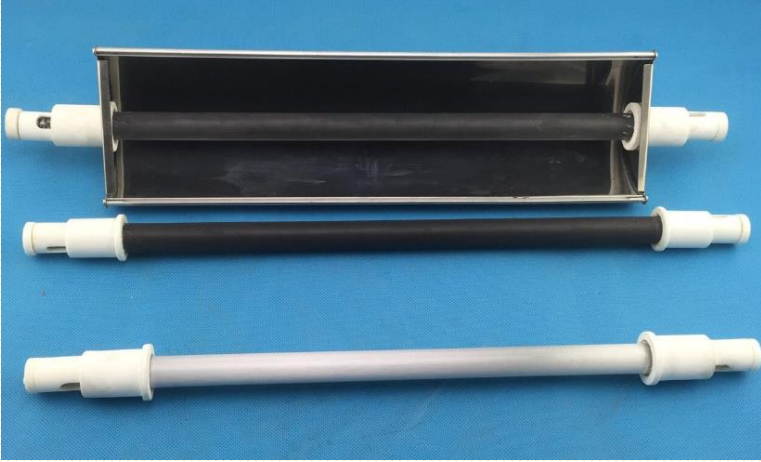
Screw shape: 110\*80 and 125\*115, we can make to order

Special size: 300\*200, 195\*195, 240\*110,

## 2. Quartz IR heating element



### 3. Silicon carbide far infrared IR ceramic heating sauna tube



**Diameter :10mm,15mm,18mm,20mm**  
**Power:200w,400w,800w ect**  
**Length can be customized.**  
**Used in sauna room and yoga room**

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### 4. Hot air ceramic heater for welding gun core



**Leister no:**  
**102.108 380-440V 5-6.7KW**  
**123.213 230V 3300W**  
**LE 115.214 3\*400V 18KW**  
**101.365 230V 3300W**  
**LS 100.689 230V 1550w**  
**LE 143.504 3\*400V 16KW**  
**142.084 3\*400 11KW**  
**LE typ38B8**  
**LE 110.644 3\*400V 15KW**  
**LE 124.322 230V 3300W**

**LEISTER TYPE 33, 230V, 1550W**  
**132.387 230V 3600W**  
**LHS 41S 117.593 230V 2KW**  
**LEISTER 800.684 230V /2200W**  
**LE 117.599 3\*400V 4KW**  
**leister 100.702 120V 1600W**  
**leister 142.718 120V 1550W**  
**143.494 3\*400V 9KW LEISTER 61S**  
**142.089 3\*400V 6KW**  
**132.391 3\*400V 9KW LHS60S**  
**117.607 3\*400V 6KW LEISTER 61S**  
**143.506 3\*480V 16KW**  
**WELDY 122.810 230V/1550W 1G3**  
**LE TRIAC S220V 1600w**  
**LE 123.233 3\*400V 11KW**



## 5. Other heaters

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**Bayonet heater**



**Ceramic bobbin heater**



**Radiant heater**



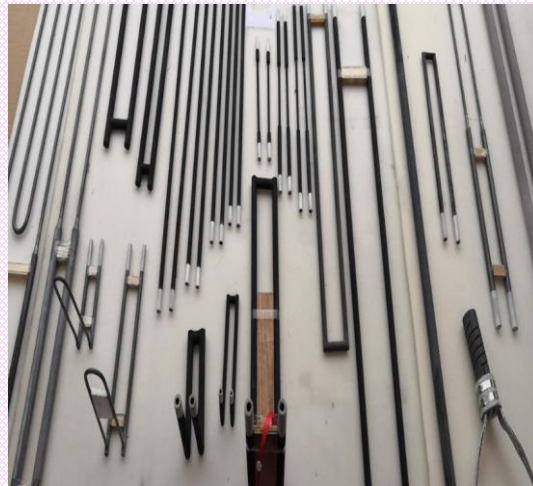
**SiC heating panel**



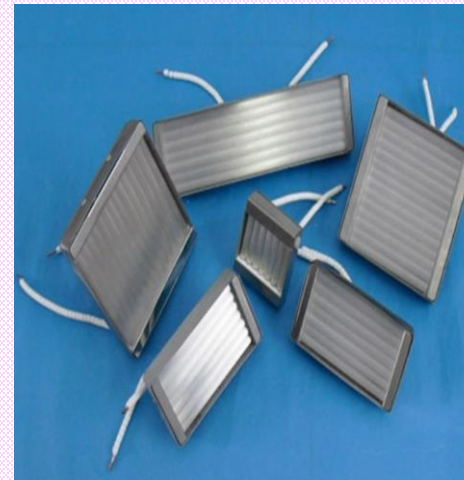
**Aluminum silicate ceramic fiber heating plate**



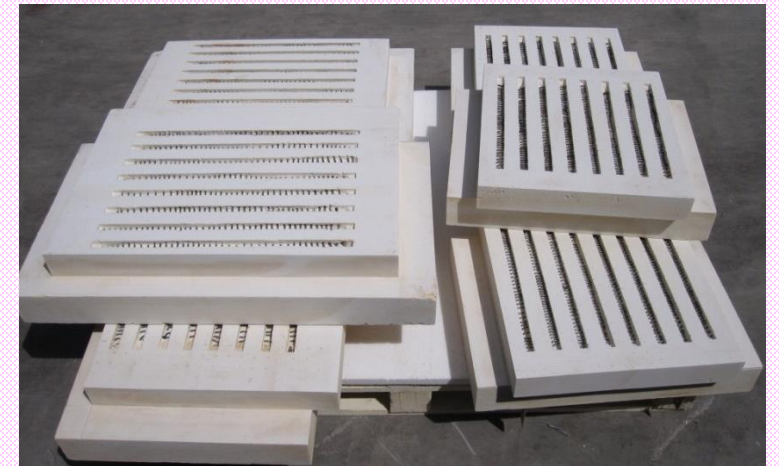
**Flexible Ceramic Pad Heaters**



**SiC and Silicon molybdenum rod**

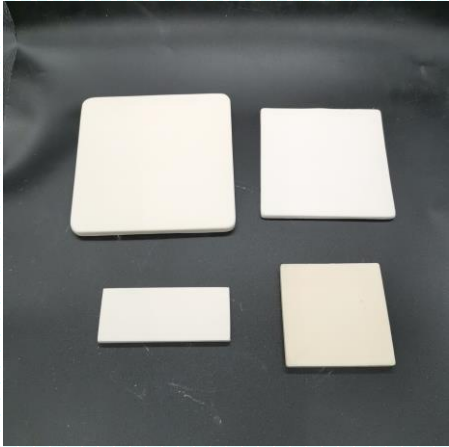


**Quartz IR heating box**



# Ceramic substrate & Brick

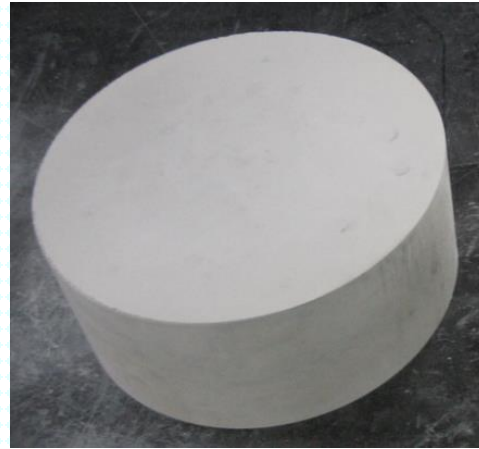
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**Al<sub>2</sub>O<sub>3</sub> sheet**



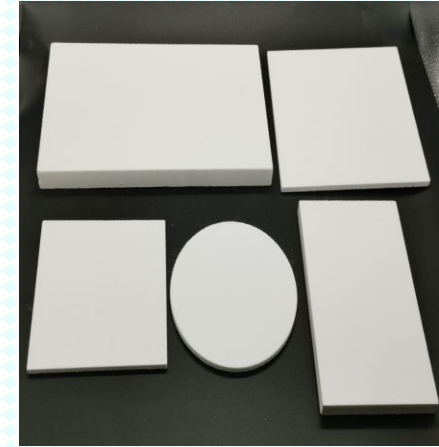
**aluminium silicate board**



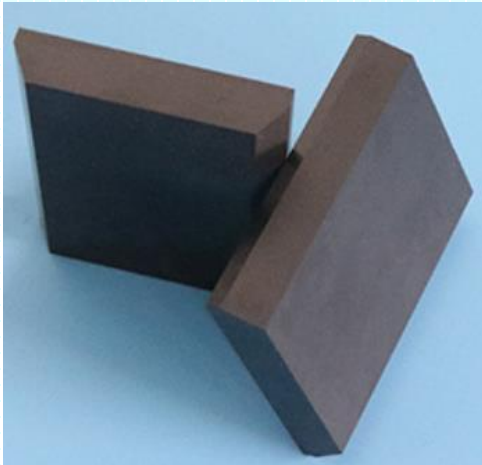
**BN plate**



**Quartz sheet**



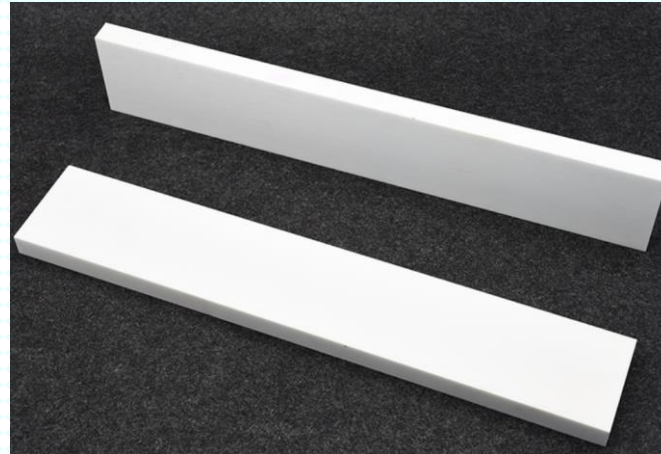
**Corundum mullite**



**Si<sub>3</sub>N<sub>4</sub> plate**



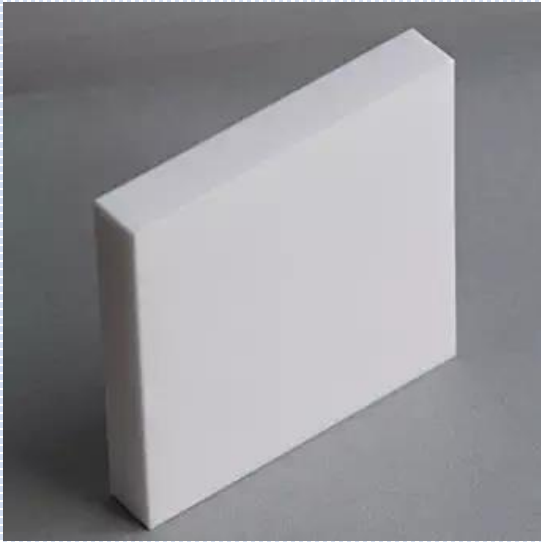
**SiC plate**



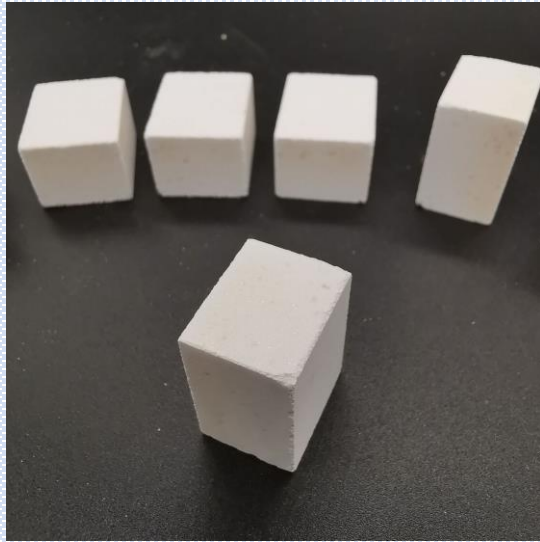
**ZrO<sub>2</sub> board**



**Cordierite burning plate**



**Macor Plate**



**Corundum brick**



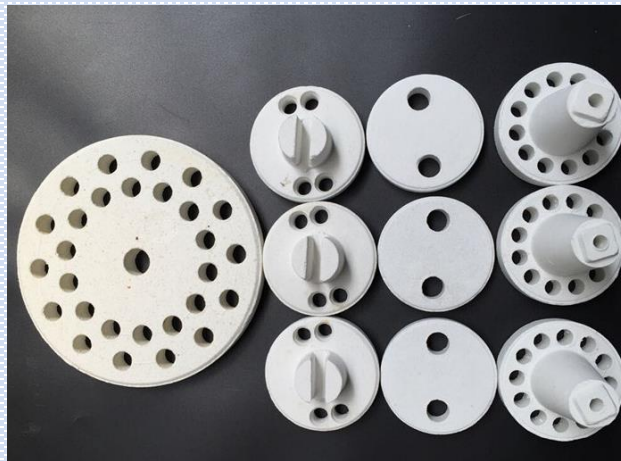
**Furance lining brick**

**Other ceramic parts**

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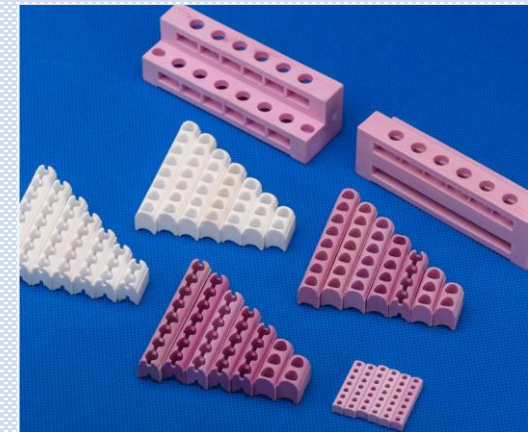
**Ceramic bobbin set and core**



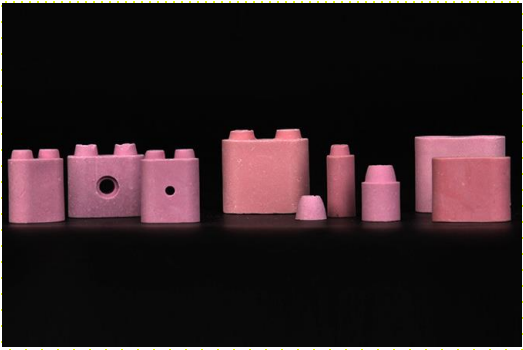
**Ceramic disc for heater support**



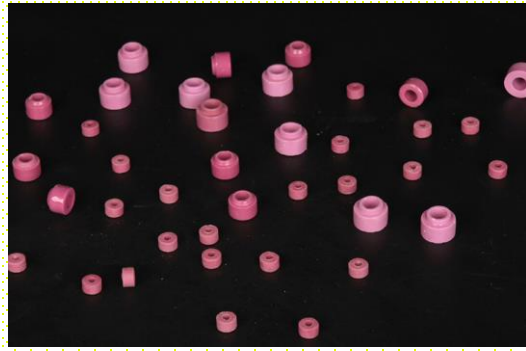
**Ceramic welding ring**



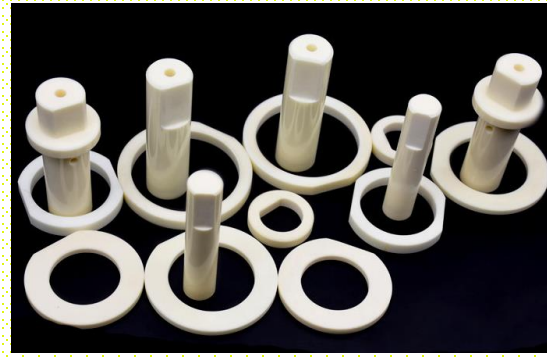
**Ceramic band heater**



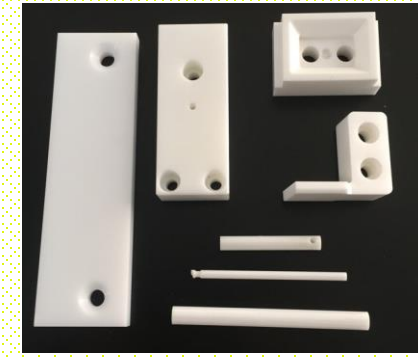
**Alumina ceramic beads**



**Al<sub>2</sub>O<sub>3</sub> ceramic busing**



**Polished Al<sub>2</sub>O<sub>3</sub> parts**



**ZrO<sub>2</sub> machined parts**



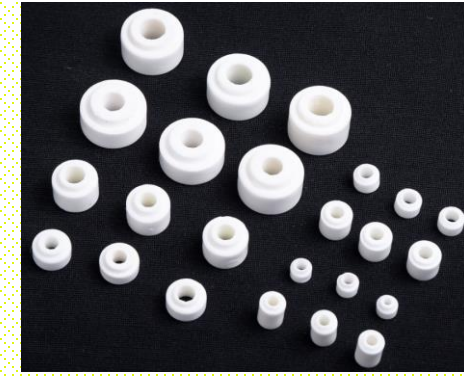
**Ceramic heater support**



**Textile ceramic**



**Ceramic eyelets**



**Steatite ceramic bush**

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