

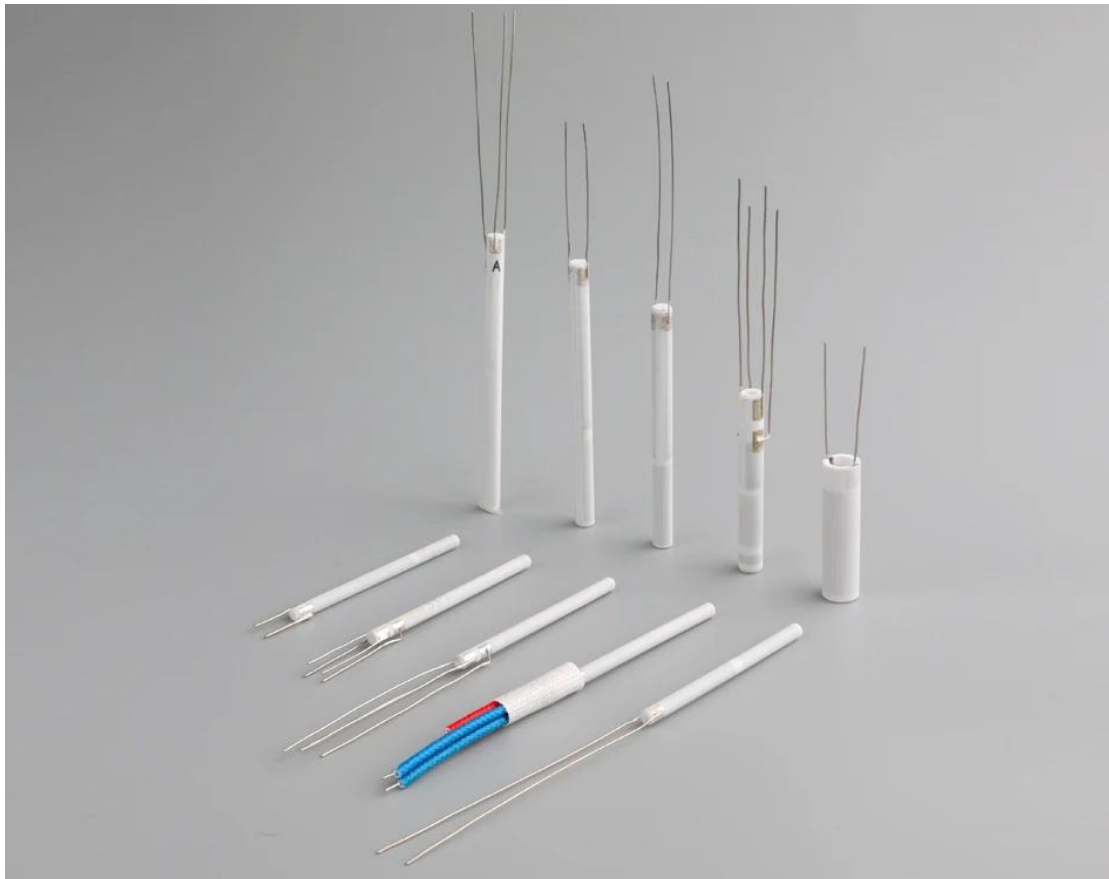
Ceramic Heating Element For Hakko Soldering Station

Ceramic Heating Element For Hakko Soldering Station were developed based on ceramic lamination technologies, which are mainly used for automotive and various industrial applications such as soldering iron, kerosene & gas equipment, pellet burner and water heating.

Model:7788

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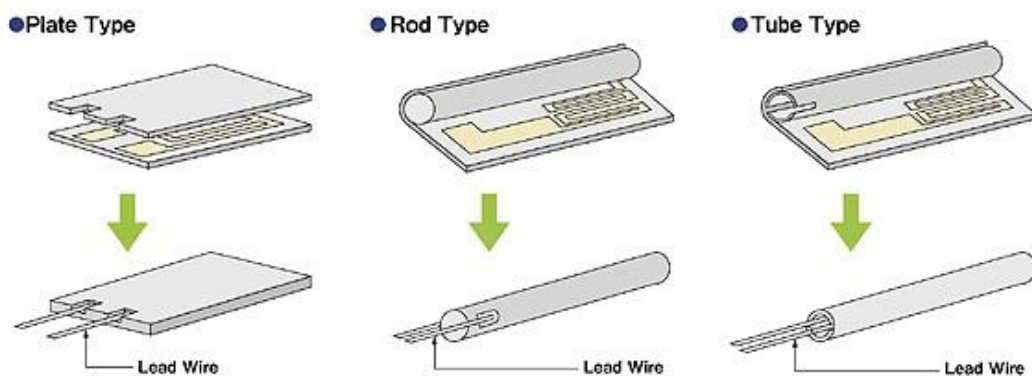
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Process of Ceramic Heating Element For Hakko Soldering Station

First, painting the high melting point metal (tungsten or molybdenum manganese) paste on to the Al₂O₃ casting briquette in coordinate to the circuit design, then another layer of sintering additives. After that, repeating the process to build multiple layers. Then, they are sintered together under 1600 °C hydrogen gas environment. Finally, nickel leads are brazed at 800 °C onto the metal end and put on with Teflon sleeve, which make it a MCH heating element.

Internal Heating elements are protected from oxidation due to sintering into one-piece ceramic body structure.



Material Properties of Ceramic Heating Element For Hakko Soldering Station

Item	Inspection Condition	Unit	Standard
Color			White
Density		g/cm ³	3.7
Water absorption		%	0
Average grain size		μm	3~5
Hardness	Load 4.9N 4.9N	GPa	≥15
Flexural strength		MPa	≥274
Linear expansion coefficient	20~500°C	1×10 ⁻⁶ mm/°C	6.5~7.5
	20~800°C		6.5~8.0
Thermal conductivity	20°C	W/(m·K)	≥20.9
Specific heat		kJ/(kg·K)	≥0.8
Insulation strength		KV/mm	≥12
Volume resistivity	20°C	Ohm.cm	≥1014
	300°C		≥1011
	500°C		≥109
Permittivity	1MHz		9~10

Dielectric loss tangent	1MHz		$\leq 3 \times 10^{-4}$
Surface roughness		μm	0.3~0.8

Features of Ceramic Heating Element For Hakko Soldering Station

It is a new type of high efficient heater, which can save more than 20%-30% power effect compare to PTC ceramic heaters. Our alumina ceramic heaters have many excellent features:

Excellent insulation (the leakage current is $< 0.5 \text{ mA}$ under voltage 4500V/1S testing with no breakdown)

High reliability, stable resistance, no electric noise

Good chemical resistance

full compliance with EU RoHS (no lead, cadmium, mercury, hexavalent chromium, PCBS, and other harmful substances)

Parameter of Ceramic Heating Element For Hakko Soldering Station

Configuration and Dimension							
Shape	Dimension	Tolerance		Tolerance		Tolerance	Resistance Tolerance
Plate	Length (mm)		Width(mm)		Thickness(mm)		
	10~120	① $\leq 20 \pm 0.3$ ② $\geq 20 \pm 1$	2~60	① $\leq 20 \pm 0.3$ ② $\geq 20 \pm 1$	0.55~2.0	① $\leq 1 \pm 0.1$ ② $\geq 1 \pm 0.15$	+/-10%
	length		Diameter				
Rod	8~121	① $\geq 30 \text{mm} \pm 0.5$ ② $30 \sim 100 \text{mm} \pm 1.0$ ③ $\leq 100 \text{mm} \pm 1.5$	2.5~8	① $\geq 5 \text{mm} \pm 0.1$ ② $5 \sim 9 \text{mm} \pm 0.2$ ③ $\leq 9 \text{mm} \pm 0.3$			+/-10%
Tube	8~121		2.5~20				+/-10%

Application

Electronic cigarette, vaporizers, coffee machine, Intelligent toilet, instant electric kettle, instant water heater, intelligent basin faucet; hair straightener, hair curler, car exhaust oxide sensor, heating for industry device, ultrasonic heating element, mold heater, medical equipment heater ,air heater, small household appliances, etc.....

FAQ

1. Q:About the after-sale service, how can you solve the problems occurred of your overseas customer in time?

A:The warranty of our ceramic heater is normally 13 months, during this period, we will arrange the international express immediately(or later batch), to make sure the replace parts to be delivered as soon as possible.

2.Q:How can i get the after-service?

A: We will send you the spare parts by free if the problems caused by us.

If it is the men-made problems,we also send the spare parts,however it is charged. Any problem, you can call us directly.

