



Product Specification

Product:	Heating Resistor Paste For Alumina (Al_2O_3) Ceramic Substrates
Part Number:	05H18

Application Scope :

This product is suitable for alumina ceramic heating circuit.

Usage Conditions :

Substrate	Alumina ceramics
Printing	200-250 mesh screen printing
Leveling	Let it level at room temperature for 5-15 minutes (adjust time based on actual leveling conditions).
Drying	Bake in a ventilation oven at 100-150°C for 10-15 minutes (if the baking temperature is below 300°C, the baking time may be adjusted based on actual conditions).
Firing Condition	The sintering temperature is 850°C (recommended value) and the sintering time is 10 minutes.
Thinner	ST1001

Characteristics :

1. Paste Characteristics :

Characteristic		Standard	Test Method And Conditions
1	Fineness	$\leq 8\mu m$	FOG test
2	Viscosity	120-280Pa.s	Brookfield HBT (Boli Fei) viscometer, rotor SC4-14/6R, operating at 10 rpm, with viscosity adjustable to $25\pm 1^{\circ}C$ according to user requirements.

2. Characteristics After Curing :

Under the 1-sintering condition, the film thickness is 8-12 μm .

Check fired film produced under the conditions specified in 1) , (Film thickness is 8-12 μm .)

Characteristics		Standard	Test Method And Conditions
3	Appearance	Compact and dense	Eyeballing



4	Resistivity	As below form	Standard film thickness: 10 μm
	Temperature Coefficient (TCR)	As below form	HTCR 25-125°C

Product Line		Heating Resistor Paste For Alumina (Al_2O_3) Ceramic Substrates		
P/N	Resistivity (Ω/\square)	TCR (ppm/ $^{\circ}\text{C}$)	Sintering Temperature $^{\circ}\text{C}$	Viscosity (kcps)
05H18-0R005xx	0.01	The last two xx represent the temperature coefficient, for example 30--->3000ppm 15--->1500ppm 12--->1200ppm 05--->500ppm 03--->300ppm	850°C	120~280
05H18-0R010xx	0.01			
05H18-0R020xx	0.02			
05H18-0R030xx	0.03			
05H18-0R050xx	0.05			
05H18-0R100xx	0.10			
05H18-0R200xx	0.20			
05H18-0R300xx	0.30			
05H18-0R500xx	0.50			
05H18-1R000xx	1.00			
05H18-3R000xx	3.00			
05H18-4R000xx	4.00			
05H18-5R000xx	5.00			
05H18-011xx	10.00			
05H18-021xx	20.00			
05H18-051xx	50.00			
05H18-101xx	100.00			
05H18-102xx	1000.00			

Save Conditions And Validity Period :

The product shall be stored in a sealed container at an ambient temperature of 5-25°C, with a shelf life of six months from the date of shipment.

Packaging Method :

1000g/can