



## Product Specification

Product:	<b>Heating Resistor Paste For Silicon Nitride (<math>Si_3N_4</math>) Ceramic Substrates</b>
Part Number:	<b>05H71</b>

### Application Scope :

This product is suitable for silicon nitride ceramic heating circuit.

Compatible with 01H-7103 electrode silver paste

### Usage Conditions :

Substrate	Silicon nitride 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 according to actual conditions).
Firing Condition	The sintering temperature is 800°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  $\mu m$ .

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



Characteristics		Standard	Test Method And Conditions
3	Appearance	Compact and dense	Eyeballing
4	Resistivity Temperature Coefficient (TCR)	As below form As below form	Standard film thickness: 10 µm HTCR 25-125°C

Product Line		Heating Resistor Paste For Silicon Nitride ( $Si_3N_4$ ) Ceramic Substrates		
P/N		Resistivity ( $\Omega/\square$ )	TCR (ppm/ $^{\circ}C$ )	Sintering Temperature $^{\circ}C$
05H71-0R02012		0.02	1200	800 120-280
05H71-0R03012		0.03	1200	
05H71-0R05012		0.05	1200	
05H71-0R10012		0.10	1200	
05H71-0R20012		0.20	1200	
05H71-0R30012		0.30	1200	
05H71-0R50012		0.50	1200	
05H71-1R00012		1.00	1200	
05H71-3R00012		3.00	1200	
05H71-4R00012		4.00	1200	
05H71-5R00012		5.00	1200	
05H71-011		10.00	1200	

**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