



POLYIMIDE FILM SINTERING WIRE

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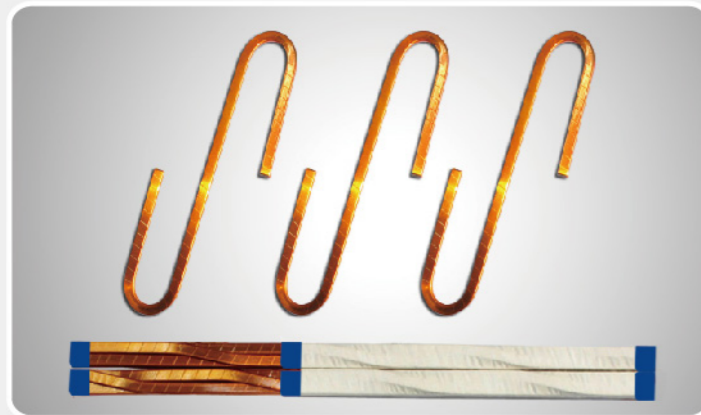
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## Product introduction

Film Sintering wire are widely used in high voltage, high power windings or the windings used in high temperature and high humidity environment for it's good quality, such as thinner insulation layer, higher broken voltage, better flexibility of conductor , better water repellency and so on.

If the corona resistance films is used, the corona resistance, surge voltage resistance and heat dissipation capacity will be increased. This is used for variable frequency motor, traction motor and high voltage motor.

Toly Electric is professional manufacturer of Polyimide film Sintering wire. The production equipments are designed with advanced technique of world and manufactured by Toly Electric who has many years experience of manufacturing high level winding wires. The main pull strength of wire and wrapping strength of insulation are constantly controlled. The production advantages is obviously including precisely insulation wrapping, smoothly and fastness insulation layer, and continuous reliable quality.



## Product type

- Polyimide-F46 sintering film flat cooper wire
- Polyimide-F46 sintering film flat aluminum wire
- Polyimide-F46 sintering film round copper wire
- Corona resistance polyimide-F46 film sintering copper flat wire

Above products can be produced according to customer requirement.

## Technical parameters

### Recommended conductor size

- Rectangular Conductor: Thickness 1.00~6.00 mm, Width 3.00~16.00 mm
- Round Conductor: Diameter 1.50~5.00 mm

### Recommended Insulation

- Single layer, 50% overlap, insulation increase (double side) $\leq$ 0.20 mm
- Single layer, 66% overlap, insulation increase (double side) $\leq$ 0.30 mm
- Single layer, 75% overlap, insulation increase ( double side) $\leq$ 0.40 mm
- Double layer, 50% overlap of each layer, insulation increase ( double side) $\leq$ 0.40 mm

All the above insulation layer thickness is nominal size.

## Material Standard

### Conductor

- The copper conductor is made from high quality oxygen free copper rod,oxygen content less than 20 ppm and electric conductivity more than 100% after annealing
- The aluminum conductor is made from high quality aluminum rod, the electric conductivity more than 62% after annealing

Insulation material: High quality polyimide-F46 Film from domestic and foreign market

- Kapton<sup>®</sup> FN polyimide film, nominal thickness : 0.038 mm
- Kapton<sup>®</sup> FCR corona resistance polyimide film, nominal thickness: 0.038 mm
- PI-2 Polyimide film, nominal thickness: 0.038 mm, 0.050 mm

Customer could appoint the brand,type and size of insulation material

## Product Property

Property of film sintering wire

Order	property	Technical requirement	Test method
1	Elongation	$\geq$ 32%, thickness $\leq$ 2.50 mm, $\geq$ 35%, thickness > 2.50 mm,	GB/T 4074.3
2	Springback	< 4.5°	
3	Bend	4a、 4b bending,insulation no crack	
4	Adhesion	15% stretch,insulation is attached	GB/T 4074.5
5	Breakdown voltage	insulation thickness 0.20 mm 0.30 mm 0.40 mm > 4000 V > 6000 V > 8000 V	
6	Heat shock	260°C	GB/T 4074.6

## Product Packing

Recommended bobbin specification of film sintering wire

Size	Side plate	Barrel	Out width	Inner width	Center hole	Load
500#	500	250	290	250	40	150kg
600#	600	300	240	200	45	180kg
720#	720	350	290	250	50	280kg

