

## TY6251-FCR corona-resistant film



Corona-resistant polyimide film not only has the characteristics of high and low temperature resistance, electrical insulation, radiation resistance and corrosion resistance of common polyimide film, but also has super corona resistance and good thermal conductivity. It is suitable for turn-to-turn insulation and main insulation of large traction motors, variable frequency motors, wind power generation motors, special motors, etc., and corona-resistant protective layer of extra-large coil external insulation, etc. I. Product model

TY6051-CR: corona-resistant polyimide film.

TY6251-FCR (single-sided, double-sided): F46 emulsion is coated on one side or both sides of corona-resistant polyimide film, which is made by drying, rolling and cutting.

Second, the technical requirements

### 1. exterior

The film is golden and translucent in appearance, smooth and smooth in surface, free from wrinkles, tears, particles, bubbles, pinholes, foreign impurities and other defects, with neat edges and no damage.

### 2. And allowable deviation of thickness

Unit is millimeter.

model	allowable variation	
TY6051-CR	0.020~0.040	±0.002
	0.041~0.075	±0.004
TY6051-FCR (single/double-sided)	0.030~0.050	±0.003
	0.051~0.100	±0.005

Note: Various corona-resistant films and F46 tapes can be produced according to the requirements of users.

### 3. Width and length

And the width and length can be cut according to customer requirements, and the maximum width can reach 1020mm.

### 4. Performance index

serial number	Index name		unit	index value		
				TY6051-CR	TY6251-FCR single side	TY6251-FCR double-sided
one	Corona endurance life	Pulse frequency:	min	≥300	≥300	≥300

	life	20KHz; vein Impulse duty ratio: 50% ; pulse Waveform: square Wave; Polarity: Bipolar;				
		Vp-p:2KV ; Pulse rising edge time (no-load): 50ns ; ; Overcurrent (alarm cut- off test Test): 50MA				
2	stretching intensity		Mpa	≥300	≥300	≥300
three	break apart extensibility		%	≥40	≥40	≥40
four	Power frequency Gas intensity	lowest value	MV/m	≥200	≥120	≥100
five	The surface resistivity is 200°C		Ω	≥1.0X10 <sup>14</sup>	≥1.0X10 <sup>14</sup>	≥1.0X10 <sup>14</sup>
six	The volume resistivity is 200°C		Ω.cm	≥1.0X10 <sup>12</sup>	≥1.0X10 <sup>12</sup>	≥1.0X10 <sup>12</sup>
seven	Relative dielectric constant 48Hz~62Hz		—	3.5±0.4	3.5±0.4	3.5±0.4
eight	dielectric loss factor 48Hz~62Hz		—	≤4.0X10 <sup>-3</sup>	≤4.0X10 <sup>-3</sup>	≤4.0X10 <sup>-3</sup>
nine	peel strength 1. Single-sided: adhesive facing back material and adhesive facing copper material. 2. Double-sided: adhesive side to adhesive side. Glue facing copper material		N/cm	—	≥3.5 ≥3.5	≥3.5 ≥3.5

Note: The test method is implemented according to GB/T21707-2008 "Three Insulation Codes for Asynchronous Motors for Variable Frequency Speed Regulation" and GB/2726-1996 "Polyimide Film".

### III. Application fields

Widely used in turn-to-turn insulation and main insulation of large traction motors, variable frequency motors, wind power generation motors, special motors, etc., and corona-resistant protective layer of extra-large coil external insulation, etc.