

## **Bi-axial Oriented Polyimide Film(BOPI Film)**

### **Property**

- \* **Producing craftsmanship : Bi-axial strength process**
- \* **Polyimide film is a polymer material with imide group, excellent physical, chemical mechanical and electric stability in the range of temperatures from -270℃ to 250℃**
- \* **Excellent chemical resistance, radiation and ultraviolet resistance, and flame resistance**
- \* **Allow space, weight saving**
- \* **The physical, chemical, electric and mechanical properties of BOPI are better than casting polyimide film**

### **Application**

- \* **Electric magnetic wire and cable coiling**
- \* **Motor slot liners, transformer(capacitor) interlayer insulation**
- \* **The substrates of Flexible Printed Circuits Board**
- \* **Electric magnetic wire insulation**
- \* **Laminating and coating adhesive, the backing film of pressure-sensitive adhesive tape, F46 (FEP) tape**

### **Appearance and Specification**

**Appearance: smooth and plain surface, without any needle cavities, tears ,bubbles and impurities, flat edge without damage**

**Color: Amber**



**Table 1 Specifications And Measure Tolerance**

Type No.	Thickness Mil( $\mu\text{m}$ )	Thickness Tolerance Mil( $\mu\text{m}$ )		Width Range Mil( $\mu\text{m}$ )		Unit Weight ( $\text{g}/\text{m}^2$ )		Area Factor ( $\text{m}^2/\text{kg}$ )
		Min.	Max.	Min.	Max.	Min.	Max.	
C0N-050BO	0.5(12.7)	0.42(10.7)	0.58(14.7)	3	1040	15.3	20.7	55.4
C0N-100BO	1(25.4)	0.9(22.9)	1.1(27.9)	3	1040	33	38	28.2
C0N-200BO	2(50.8)	1.84(46.7)	2.16(54.9)	5	1040	66.2	77.7	13.9

**Table 2 Mechanical Properties**

Thickness(mil/ $\mu\text{m}$ )		Units	0.85 (12.7)	1 (25.4)	2 (50.8)	Test Condition	Test Method
Tensile Strength (min)	MD	psi(Mpa)	24700 (170)	24700 (170)	24700 (170)	20°C	ASTM-D-822
	TD		24700 (170)	24700 (170)	24700 (170)		
Elongation at Rupture (min)		%	60	80	100	50Hz, 20°C	ASTM-D-822
Shrinkage (max)		%	0.35	0.35	0.35	150C	IPC-TM-650 2.2.4
			1	1	1	400C	

**Table 3 Electric Properties**

Thickness (mil/ $\mu\text{m}$ )		Units	0.8 (20.3)	1 (25.4)	2 (50.8)	Test Condition	Test Method
Breakdown Strength	Average	V/mil (KV/mm)	5800 (230)	5800 (230)	5800 (230)	50Hz 20°C	JB/T2726-96
	Individual		5300 (210)	5300 (210)	5300 (210)		
Volume Resistance (min)		$\Omega\cdot\text{m}$	$10^{10}$	$10^{10}$	$10^{10}$	200°C	JB/T2726-96
Surface Resistivity (min)		$\Omega$	$10^{13}$	$10^{13}$	$10^{13}$	200°C	JB/T2726-96
Dielectric Constant		-----	3-4	3-4	3-4	50Hz 20°C	JB/T2726-96
Dielectric Dissipation Factor (max)		-----	0.004	0.004	0.004	50Hz 20°C	JB/T2726-96

**Table 4 Specifications Of Supply And Package**

Thickness Mil(μm)	Units	0.8 (20.3)	1 (25.4)	2 (50.8)
Length	m	3000	1500	800
	ft	5000	5000	2500
Core Size	mm(inch)	76.2(3)	76.2(3)	76.2(3)
Joint (max)		4	3	2
Package	<b>Inside: Polythene film;</b> <b>Outside: Carton or Wooden case; Plastic Pallet; wrapping Film</b>			
Storage	<b>Sealed and in dry place</b>			
Shelf life	<b>Quality guaranteed for two years</b>			

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