



**Product Specification**

Issue Date: April, 2006

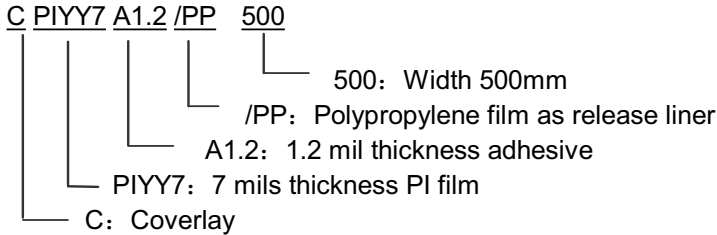
**CPIY Halogen Free Stiffener of Polyimide with Adhesive**

**1. Description & Designation:**

CPIY product consists of PI film coating adhesive clad release film. It includes various types according to different thickness PI film, adhesive and release film utilized to meet the specific needs of customers.

Materials		Thickness	Supplier
Base film	Polyimide film	3.0, 4.0, 5.0, 6.0, 7.0 and 8.0 mils etc. (0.075, 0.100, 0.125, 0.150, 0.175, 0.200mm) etc.	China etc.
Release Film	PP Film	2.0 mils (0.050mm) etc.	Toray of USA
	Release Paper	Cover PE in double sides and release on one side	Japan, Taiwan
Adhesive	Acrylic adhesive	Natural, Thickness 0.5 2 .0 mils (0.0125 0.050mm) etc.	USA, Japan

- Some special types appointed by customers can also be produced besides the common types listed in the above form.
- CPIY product is identified by the following method (Y is may different letter for the different PI supplier):



**2. Features & Applications:**

CPIY products are widely used in flexible printed circuits board of PI film as stiffener with the following features.

- Meet the RoHS requirement & halogen free, and pass SGS certificate.
- Good electrical property, Low flow system that minimizes adhesive squeeze out.
- High bond strength to copper circuit traces, and excellent dimensional stability.
- Very competitive price under keeping good performance.
- The slight defect appearance and color difference possibly exist because the limited PI quality.

**3. Package**

- Standard roll: 25+0.25 or 50+0.25 square meters per roll, maximum 2 splices and minimum 20m distance during two splices.
- Standard width: 500mm width except the customer’s special instruction within the maximum width 500mm.
- Inner diameter core: 6 inches (152mm), packed in carton and outside wrapped with PE film.

**4. Storage:**

- Storage time: 12 months since production date; please use after inspection again passed for the materials over the storage time.
- Recommended storage condition: temperature 68 86? (about room Temp. and cool no needed), maximum relative humidity 75%.

## CPIY Halogen Free Stiffener of Polyimide with Adhesive Data Sheet of Performance

Property To Be Tested	Test Method	Typical Product Value CPIYY5A1/PP	Typical Product Value CPIYY7A1.2/PP
*Peel strength, minimum, lb./in. width As received After sold float	IPC TM 650 2.4.9 Method B Method D	8.0 8.0	8.0 8.0
Tensile strength, minimum lb./in. <sup>2</sup>	IPC TM 650 2.4.19	19,200	14,200
Elongation, minimum percent	IPC TM 650 2.4.19	80	80
Dimensional stability, maximum, percentage, Peel off release film Peel off release film and dry	Q000067 IPC TM 650 2.2.4 A	(MD/TD): +/- .10 (MD/TD): +/- .20	(MD/TD): +/- .10 (MD/TD): +/- .20
Adhesive Appearance	By eye	Transparent	Transparent
Adhesive Thickness	Q000463	0.025mm	0.030mm
Adhesive flow, maximum (squeeze out in inch),	IPC TM 650 2.3.17.1	3 mils/mil	3.6 mils/1.2mil
Flammability	IPC TM 650 2.3.8.1	N/A	N/A
Volatile content, maximum percentage,	IPC TM 650 2.3.37	3.0	3.0
*Solder float	IPC TM 650 2.4.13	550? 30seconds Pass	550? 30seconds Pass
*Chemical resistance, percentage	IPC TM 650 2.3.2	90	90
Dielectric constant, maximum (at 1MHz)	IPC TM 650 2.5.5.3	3.75	3.75
Dissipation factor, maximum (at 1MHz)	IPC TM 650 2.5.5.3	0.04	0.04
Volume resistivity, minimum, megohm cm	IPC TM 650 2.5.17	10 <sup>6</sup>	10 <sup>6</sup>
Surface resistance, minimum, megohms	IPC TM 650 2.5.17	10 <sup>5</sup>	10 <sup>5</sup>
Dielectric strength, minimum, volts/mil	ASTM D 149	2000	2000
Insulation resistance, minimum, megohms, at ambient	IPC TM 650 2.6.3.2	10 <sup>4</sup>	10 <sup>4</sup>
Moisture and insulation resistance, minimum, megohms	IPC TM 650 2.6.3.2	10 <sup>3</sup>	10 <sup>3</sup>
*Moisture absorption, maximum, percent	IPC TM 650 2.6.2	4.0	4.0

**Mark:**

- (1) \* These data are applied to the relevant coverlay laminate with 1Oz/SF ED copper.
- (2) Recommended laminating cycle is 330 340°F for 45 60 minutes at 215 285 psi.
- (3) Above data sheet are base on the typical products values. The final data for specific products supplied, please check the testing report attached with the shipment. These data are only for user's reference. The user should determine the suitability of JJFlex CPIY materials for each application.
- (4) N/A: Not applicable.