



Product Specification

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CPEN Halogen Free Coverlay of Polyethylene Naphthalate with Adhesive

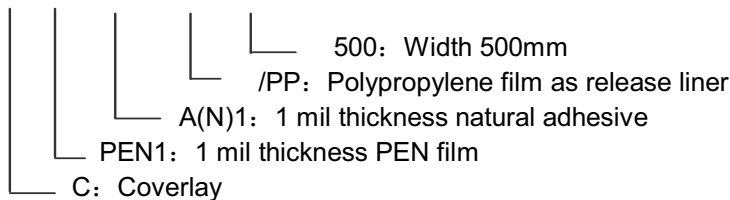
1. Description & Designation:

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

Materials		Thickness	Supplier
Base film	PEN film	1, 2, 3, 4 and 5 mils (0.025, 0.05, 0.075, 0.100,0.125mm) etc.	TeijinD upont
Release Film	PP Film	2.0 mils (0.050mm) etc.	Toray of USA
Adhesive	Polyester adhesive	Natural, Thickness 0.5 2 .0 mils (0.0125 0.050mm) etc.	USA, Japan
	Color of adhesive	N(Natural)、B(Blue) etc.	

- Some special types appointed by customers can also be produced besides the common types listed in the above form.
- CPEN product is identified by the following method:

C PEN1 A(N)1 /PP 500



2. Features & Applications:

CPEN products are widely used in flexible printed circuits board of PEN film as coverlay with the following features.

- Meet the RoHS requirement & halogen free, and pass SGS certificate.
- Good bond strength and good chemical resistance.
- Excellent dimensional stability
- Higher solder float than CPET products.

3. Package

- Standard roll: 50+0.25 or 100+0.25 square meters per roll, maximum 2 splices and minimum 20m distance during two splices.
- Standard width: 500mm or 24 inches width except the customer’s special instruction within the maximum width 24 inches.
- Inner diameter core: 6 inches (152mm) or 3 inches (76mm), 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%.

CPEN Halogen Free Coverlay of Polyethylene Naphthalate with Adhesive Data Sheet of Performance

Property To Be Tested	Test Method	Typical Product Value CPEN1A(N)1/PP	Typical Product Value CPEN2A(N)1/PP
Peel strength, minimum, lb./in. width	Q000583	2.0	2.0
Tensile strength, minimum lb./in. ²	IPC TM 650 2.4.19	17,800	20,800
Elongation, minimum percent	IPC TM 650 2.4.19	40	50
Melt point of adhesive	Q000307	130 160°F	130 160°F
Flammability	IPC TM 650 2.3.8.1	N/A	N/A
Adhesive Thickness	Q000463	0.025mm	0.025mm
Adhesive Appearance	By eye	Transparent	Transparent
Dissipation factor, maximum (at 1 MHz)	IPC TM 650 2.5.5.3	0.015	0.015
Dielectric strength, minimum, volts/mil	ASTM D 149	300	300
Insulation resistance, minimum, megohms, room temperature	IPC TM 650 2.6.3.2	10 ⁵	10 ⁵
Volatile content, maximum percentage,	IPC TM 650 2.3.37	2.0	2.0

Mark:

- (1) Recommended laminating cycle is 230 250°F for 3~5 minutes at 215 242 psi, and drying in oven of 185~200 °F for 45~60 minutes after laminate.
- (2) 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 CPEN materials for each application.
- (3) N/A: Not applicable.