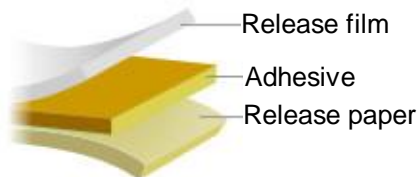


Thermosetting tapes for FPC D3450series

Features

- D3450 series are thermosetting tapes for bonding stiffener to FPC.
- Application to lead free solder reflow process in moisture absorption condition is possible.
- Excellent bonding strength for polyimide film, glass epoxy, aluminum and stainless steel plate.
- It is possible to store at room temperature.
- Temporary bonding is possible because of initial adhesive layer having tack.
- Suitable for used in vacuum quick press and postcure.

Structure



	D3450	D3451
main component	acryl/epoxy	acryl/epoxy
carrier	Non-carrier	Non-carrier
color	White	White
adhesive thickness(μm)	About 35	About 25
release film thickness(μm)	About 38	About 38
release paper thickness(μm)	About 130	About 130
bonding strength (N/10mm) ※	31	25
st'd size (width & length))	500mmX100m	500mmX100m

※ 90° peeling strength (CCL/ADH/polyimide stiffener)

<Standard bonding condition>

■ Vacuum quick press and postcure process

Press temperature : 160 °C to 180°C

Vacuum time : 10 to 30 sec

Pressing time : 1 to 2 min.

Pressure : 1 to 2 MPa

Postcure condition : 140°C 60min.

■ Long press process

Press temperature : 160 °C

Pressing time : 60 min.

Pressure : 3 MPa

Suitable use

- Ideal for bonding FPC stiffener (Polyimide, Glass Epoxy, Aluminum, and Stainless Steel) that under go heat treatment such as solder reflow.

Technical data

[Remarks]

*The above values are sample observed values, not the guaranteed performance.

1. Bonding strength on various type of substrate (90° peeling)

<Test piece condition>

Substrate : Glass Epoxy/Polyimide/Aluminum/Stainless steel plate

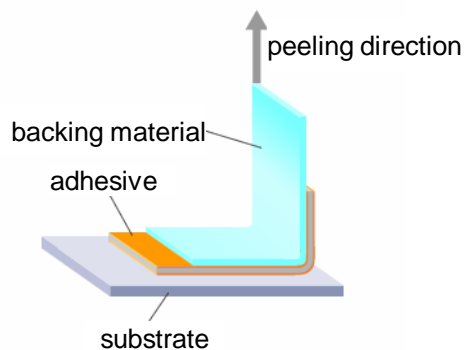
Tape width : 10mm

Bonding condition : recommended processes

Measuring condition : 23°C±5°C 60%±20%RH

Peeling speed : 50mm/min

Backing material : CCL(Copper Clad Laminate)

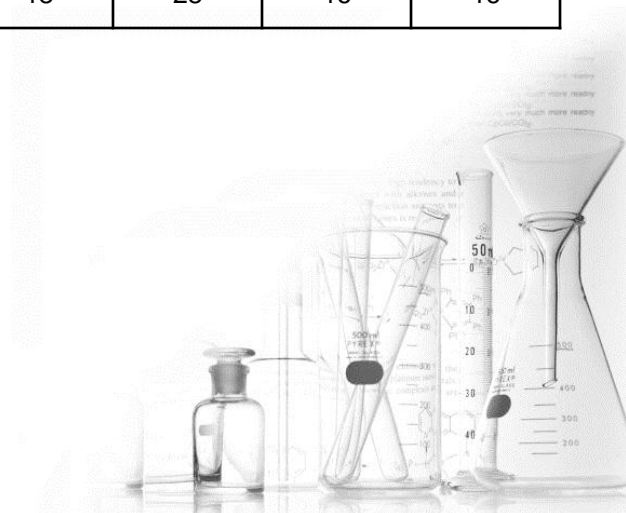


<90° peeling strength test>

<Results>

(N/10mm)

Bonding condition	substrate	D3450		D3451	
		Normal	After reflow	Normal	After reflow
Vacuum quick press and postcure	CCL/Polyimide	31	31	25	25
	CCL/Glass epoxy	27	28	23	23
	CCL/Aluminum	16	16	25	15
	CCL/Stainless steel	17	18	26	16
Long Press	CCL/Polyimide	26	26	21	21
	CCL/Glass epoxy	28	28	22	22
	CCL/Aluminum	16	16	15	15
	CCL/Stainless steel	18	28	16	16



2.Solder reflow process heat resistance

<Test piece condition>

Structure : polyimide film/adhesive/CCL

Bonding condition : Standard processes

Treatment before reflow process

(A) Dry processing: 100°C1hour

(B) Moisture absorption processing: 40°C90%RH96hour

Solder reflow condition : top 260°C(Reference profile)

Measuring condition : 23°C±5°C 60%±20%RH

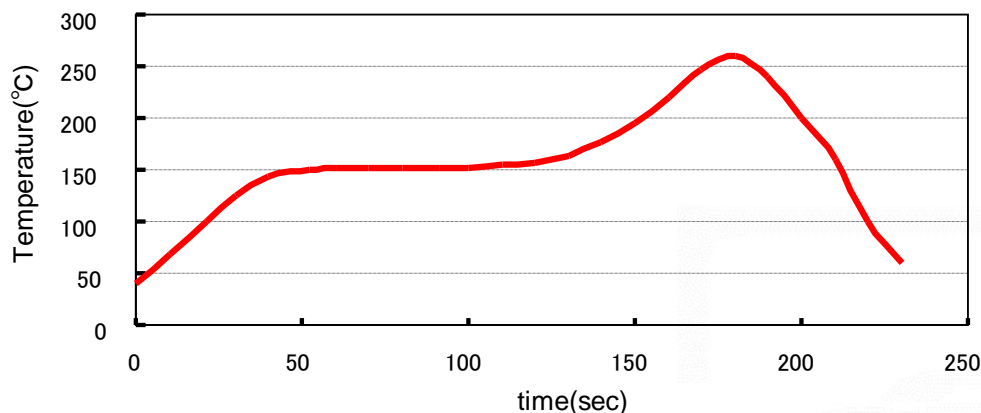
* Appearance after solder reflow process

<Results>

Bonding condition	treatment before reflow	Process conditon	D3450	D3451
Vacuum quick press and postcure	Dry	1/100/-	No change	No change
	Moisture absorption	96/40/90	No change	No change
Long press	Dry	1/100/-	No change	No change
	Moisture absorption	96/40/90	No change	No change

* Process time (h) / Temperature (°C) / Humidity (%)

<profile of solder reflow process>



Notes

- Resin flow characteristics in the products is greatly dependent on thickness, size and shapes of stiffeners. Please check the flowing before using. Especially, in the case of using the stiffeners with holes it is necessary to be careful.
- When using the products, bubbles may remain easily after pressing by depending on size and shapes of stiffeners. Especially, if bonding to large size stiffeners, please execute evaluation enough before using and take care to prevent from remains of bubbles.

Revision in Feb., 2014

Note on the characteristic data given— Data on the characteristics of the products described in this catalog are based on the results of evaluations carried out by the company. This does not guarantee that the characteristics of the product conform with your usage environment. Before use, review the usage conditions based on evaluation data obtained from the equipment and substrates actually used.

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