

DH-M15P Adhesive Film

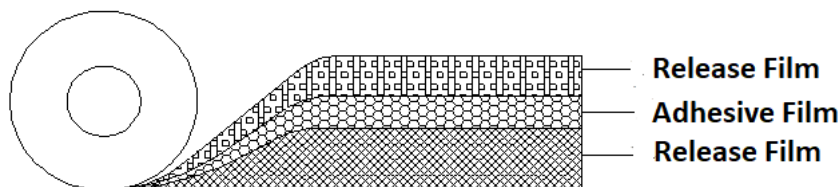
1. Product Characteristics

- Fast Curing
- Excellent Adhesion Strength on Different Surfaces
- High Reliability under High temperature and High Humidity
- Excellent Chemical Resistance, Insulation Resistivity, and Dielectric Properties
- Excellent Flexibility and Elastic Behaviors
- Room Temperature Storage
- Halogen free (Compliant with ROHS)

2. Applications

Suitable for bonding and fixing multilayer circuit boards.

3. Structural Diagram



Model	DH-M15P
Color	Slightly Blue
Thickness of Adhesive Film (um)	15
Thickness of Release Film 1 (um)	30
Thickness of Release Film 2 (um)	50
Standard Film Size	250mm×100m 500mm×200m

4. Product Specification

#	Properties	Unit	Performance Requirements	Test Results	Testing Method
1	Thickness	um	15	±3	Company Method
2	Width	mm	250	±1	Company Method
		mm	500	±1	Company Method
3	Peel Strength	N/mm	≥1.0	≥1.2	IPC-TM-650-2.4.9
4	Chemical Resistance	--	5%HCl	OK	IPC-TM-650-2.3.2
		--	5%NaOH	OK	IPC-TM-650-2.3.2
5	Soldering Resistance	--	288°C/10S	OK	IPC-TM-650-2.4.13
6	Adhesive Overflow Amount	mm	0.10mm	0.05mm	Company Method

#	Properties	Unit	Performance	Test Method
1	Surface Resistance	Ω	2.41E+13	ASTM D257
2	Glass Transition Temperature (Tg)	°C	-31.55	TMA
3	Breakdown Voltage	KV	≥3.0	ASTM D149
4	Dielectric Strength	KV/mm	≥80	ASTM D149
5	Decomposition Temperature (1% Weight Loss Temperature)	°C	320.25	TGA

5. Recommended Production Conditions

Transfer: Peel off the protective film and transfer to the substrate at 120°C-150°C, ensuring close adhesion.

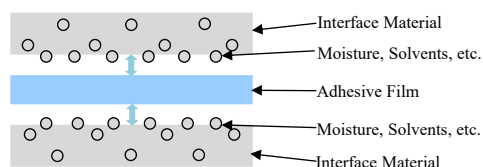
Pressing Steps:

- 1) Place the lamination material and apply vacuum.
- 2) Temperature: Equipment initial temperature °C to 180°C
Pressure: 0.8-1.5 MPa.
- 3) Temperature: 180°C-200°C
Pressure: 2.0-3.0 MPa
Time: 30 minutes ±
- 4) End

Note: The material must be applied smoothly, without bubbles or gaps, and proper venting should be done.

Usage Precautions:

- When bonding materials that have absorbed moisture, the temperature resistance and bonding performance will be reduced. Be sure to clean the contact surface thoroughly. Before production, ensure the contact surface is dry (pre-bake) and free of solvent residues (such as acids, alkalis, oil stains, organic solvents, etc.) before pressing and forming.



Once the bonding material absorbs moisture, it becomes sealed after lamination, making it difficult for the moisture to escape.

- Depending on the size of the substrate and the shape of the circuits, it is essential to perform lamination testing first. Based on the product conditions, determine whether vent holes need to be added to address issues related to insufficient venting and trapped air bubbles.
- The above is recommended production conditions. Process adjustments can be made according to actual product designs.

6. Technical Documentation

1) Adhesion Strength to Various Substrates (90° Peel Test)

● Testing Conditions

Bonding Material: FCCL + FCCL

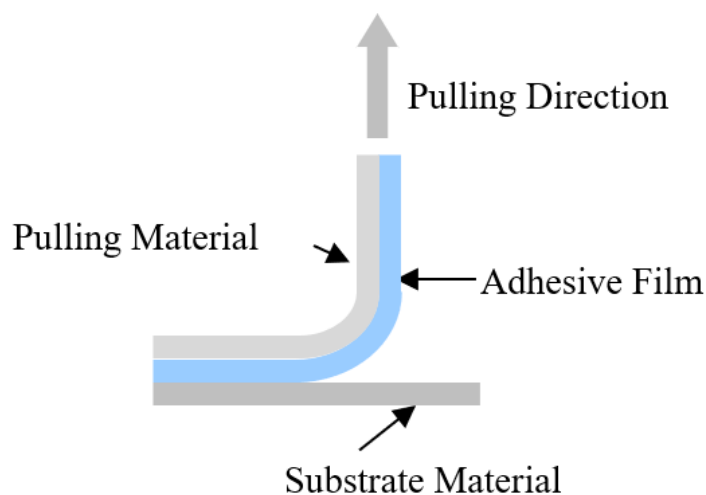
Tape Width: 10mm

Lamination Conditions: Recommended production conditions

Measurement Environment: 23°C ± 5°C, 50% ± 10% RH

Peel Speed: 50mm/min

Pulling Material: FCCL



Results (N/mm)

Production Conditions	Bonding Materials	DH-M15P	
		After Curing (kgf/cm)	After Reflow Soldering (Kgf/cm)
Structure	PI/AD/PI	≥1.0	≥1.0
	Cu/AD/PI	≥1.0	≥1.0

- ❖ Note: The sample uses a single-sided copper foil type: Single-sided FCCL (PI: 25um, AD: 25um, CU: 18um).
- ❖ The FCCL contact interface should be dried and treated to remove solvents (such as acids, alkalis, oil stains, organic solvents, etc.).

2) Reflow Soldering Resistance Characteristics

● Testing Conditions

Bonding Material: FCCL + FCCL

Lamination Conditions: Recommended production conditions

Temperature Resistance: 288°C

Measurement Environment: 23°C ± 5°C, 50% ± 10% RH

Conclusions

Test Conditions	Result
Recommended Production Conditions	No abnormalities (or No issues)

Note: When stored for an extended period, drying treatment is required before SMT reflow soldering.

7. Storage

Store at a temperature below 30°C, humidity below 50%, in sealed packaging, in an indoor environment free from corrosive substances, and away from direct sunlight. Shelf life is 6 months from the manufacturing date.

8. Packaging

Each roll of finished product is packed in a cardboard box to prevent collision during transportation. The product is packaged with moisture-proof, dry, and sealed packaging, and each roll is placed in a cardboard box.