



TopFlex

Distributed by:



**TopFlex Corporation**

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## ThinFlex-Q2,Q-1010TA-mb Halogen Free Coverlay

IPC Designation IPC-4203/4

ThinFlex-Q2 is polyimide film coated on one side with flameretardant modified halogen free epoxy adhesive. Coverlay can be used in the fabrication of flexible printed circuits for circuit protection and insulation.

### 1. Product Characteristics:

- \* Excellent heat resistance
- \* Good dimensional stability
- \* Excellent anti-flammability (UL 94V-0; UL File No. E219724)
- \* Excellent chemical resistance
- \* Excellent thermal, mechanical and electrical properties
- \* Products can meet the environmental requirements of RoHs/Reach....

### 2. Specifications:

**Q** - **10** **10** **T** **A** - **mb**

Product	PI Thickness	Adhesive Thickness	PI Film	Release Paper	Adhesive
Q :Coverlay	10:1.0mil	10:1.0mil	TAIMIDE	Release Paper	mb
Supply Size	W:250/500 ±1mm;L:200 +2/-0m (Roll type)				

**\*Other thicknesses and dimensions are available on customers' demand.**

### 3. Constructions:

Polyimide film
Halogen Free Epoxy Adhesive
Release paper



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#### 4. Properties:

IPC Designation IPC-4203/2

Test Item	Unit	Q-1010TA - mb	Test Method
Peel Strength			
As received	kgf/cm	$\geq 0.7$	IPC-TM650 2.4.9
Solder float	kgf/cm	$\geq 0.7$	IPC-TM650 2.4.9
Solder float	PASS	288°C 10sec	IPC-TM650 2.4.13
Surface Resistance	$\Omega$	$\geq 1.0 \times 10^{10}$	IPC-TM650 2.5.17
Volume Resistance	$\Omega \cdot \text{cm}$	$\geq 1.0 \times 10^{12}$	IPC-TM650 2.5.17
Dielectric Constant	-	3.5	<b>ASTM D150</b>
Dissipation Factor	-	0.026	
Tensile Modulus (Base Film)	Kg/mm <sup>2</sup>	430	ASTM D882
Resin Flow	um	80~120	ThinFlex
Dimensional Stability			
MD	%	-0.2~0.2	IPC-TM-650 2.2.4
TD	%	-0.2~0.2	IPC-TM-650 2.2.4
Thickness Tolerance	%	$\pm 10\%$	ThinFlex
ULFlame Class	-	94V-0	UL

\* Above data are typical values, and are not guaranteed values.



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## 5. Lamination and Process Conditions

**ThinFlex Halogen Free Coverlay** are typically used in the following ranges:

### A) Traditional Hot Press Conditions:

1. Part Temperature: 170-180°C
2. Pressure: 30-50 kg/cm<sup>2</sup>
3. Time: 60-90min, at temperature

### B) Fast Hot Press Condition:

1. Pre-Press Temp / Time / Pressure: 170-190°C / 10sec / kiss pressure
2. Hot-Press Temp / Time / Pressure: 170-190°C / 90-140sec / 80-120kg/cm<sup>2</sup>
3. Post Cure Condition: 160°C / 60-120 minutes

## 6. Storage:

ThinFlex-Q2 will meet its shelf-life for at least 3 months from product date and stored in the original packaging in a dry place at temperatures below 4±2°C; 50±20% RH.

Note: The information and data contained in this technical literature is believed to be accurate and is offered in good faith for the benefit of the user. The user should make his own tests to verify the suitability of this product for any application before its use. All data are typical values only and subject to change without notice.

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