



TopFlex

Distributed by:



**TopFlex Corporation**

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## ThinFlex-Q2,Q-1020TA-mb Halogen Free Coverlay

IPC Designation IPC-4203/4

ThinFlex-Q2 is a composite of 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
- \* Excellent chemical resistance
- \* Excellent thermal, mechanical and electrical properties
- \* Products can meet the environmental requirements of RoHs/Reach....

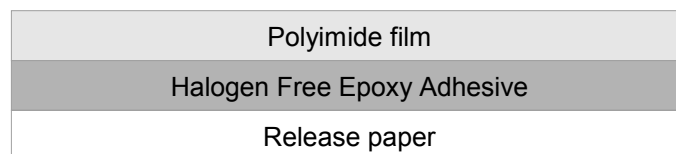
### 2. Specifications:

**Q** - **10** **20** **T** **A** - **mb**

| Product     | PI Thickness                            | Adhesive Thickness | PI Film | Release Paper | Adhesive |
|-------------|---|--------------------|---------|---------------|----------|
| Q :Coverlay | 10:1.0mil                               | 20:2.0mil          | TAIMIDE | Release Paper | mb       |
| Supply Size | W:250/500 ±1mm;L:100 +2/-0m (Roll type) |                    |         |               |          |

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

### 3. Constructions:





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#### 4. Properties:

IPC Designation IPC-4203/2

| Test Item             | Unit               | Q-1020TA - 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     | $\Omega\text{-cm}$ | $\geq 1.0 \times 10^{12}$ | IPC-TM650 2.5.17  |
| Dielectric Constant   | -                  | 3.5                       | <b>ASTM D150</b>  |
| Dissipation Factor    | -                  | 0.026                     |                   |
| Resin Flow            | um                 | $\leq 200$                | 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.

## 7. Back to the temperature parameter :

Time : At least 2 hours  
Temperature : 20 ± 10°C  
Humidity : 50 ± 20%

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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