



POLYFLON BONDING FILM



Polyflon Bonding Film is a thermally stabilized, irradiated polyolefin co-polymer developed to achieve excellent bond strength with low-flow characteristics. The film can be used for fabricating strip-line circuits using most of today's microwave/RF laminate materials. The low bonding temperature is ideal for temperature critical materials/applications.

FEATURES AND BENEFITS

- Low DK
- Low Loss
- Low Flow

| PROPERTY | VALUE | UNITS | DIRECTION | FREQUENCY | TEST METHOD/CONDITION |
|------------------------------|------------------|---|-----------|-----------|-----------------------|
| Thickness | .002 | Inches | - | - | - |
| Dielectric Constant | 2.34 | - | - | 9.5 GHz | ASTM D-150 |
| Dissipation Factor | .002 | - | - | 9.5 GHz | ASTM D-150 |
| Dielectric Strength (0.002") | 1000 | V/mil | Z | - | ASTM D 149 |
| Volume Resistivity | 10 ¹⁶ | ohm • cm | Z | - | ASTM D 257 |
| Tensile Strength | 3000 nom | psi | - | - | ASTM D-882 |
| Elongation | 300 nom | % | - | - | ASTM D-882 |
| Specific Gravity | 2.15 | - | - | - | ASTM D 792 |
| Density | 0.929 | gm/cm ³ | - | - | ASTM D-1052 |
| Color | Translucent | - | - | - | - |
| Water Absorption | < .01 | % | - | - | ASTM D 570 |
| RoHS Compliant | Yes | Compliance Statement Available Upon Request | | | |

BONDING TECHNIQUE

1. The boards to be bonded must be clean and free from skin oils, dust and foreign matter. The dielectric surfaces should be primed with appropriate commercial preparations (e.g. Use a sodium etch treatment such as Tetra Etch to prepare PTFE based boards). Copper surfaces can be cleaned using a scrubber, however, do not make contact with primed surfaces.
2. Place bonding film between boards to be laminated. A thermocouple is recommended at the bondline.
3. Place in hot press at 100-125 psi and raise temperature of bondline to 250-300°F.
4. Hold under pressure for 6-10 minutes.
5. Cool under pressure to less than 100°F before removing from press.

Polyflon Bonding Film Ordering Information

| Thickness | Roll Size | Part Number |
|---------------|----------------|-------------|
| 0.002" (51µm) | 24" x 100 feet | PPBF-200G9 |
| | 36" x 100 feet | PPBF-200G11 |

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