Bondply VT-447 RCF

UL Approval: E214381   Version: 18/01/2026 - PRELIM

High Tg & Halogen Free Resin Coated Film

General Information

- Halogen Free
- Phenolic Cure System
- High Tg FR-15.1
- UV Blocking
- CAF Resistance
- Excellent Thermal Reliability
- Excellent Resin Filling

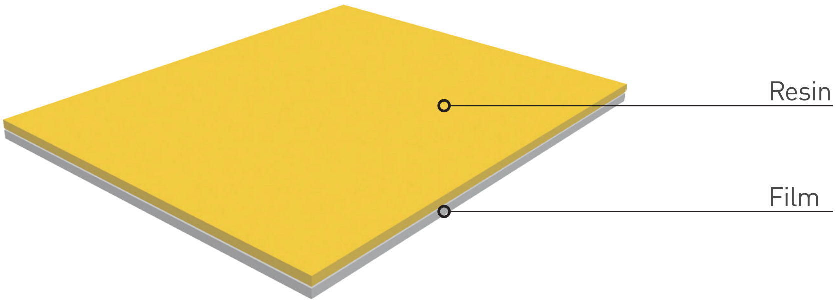
Application

It is specially designed to fill both single sided and double sided heavy copper in multi-layers, which minimize the usage of ultrathin prepreg or relieve PCB makers of the bother of cockamamie pro-coating to heavy copper.

Availability

- Dielectric Thickness: .004”(100µm)/.006”(150um)/ .008”(200µm)
- Standard Size: Width: 24.01”(610mm), Length: 18.11”(460mm)/20.08”(510mm)/20.98”(533mm)*
- PET film Thickness: 50µm

Note: *For standard sizes discuss with customer.



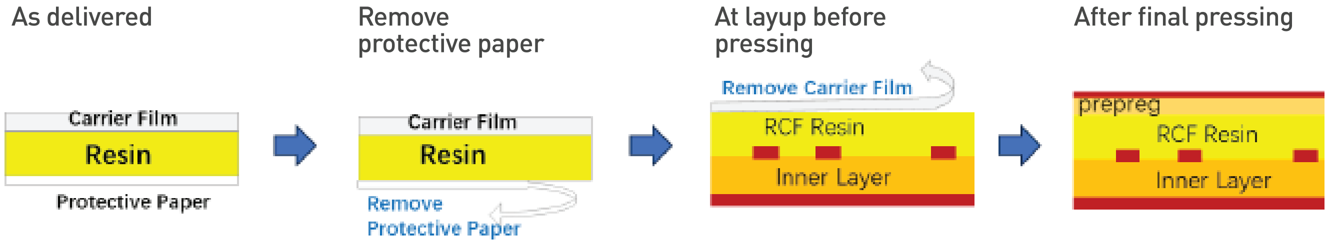
Properties Sheet

Properties		Test Method	Units	Specification	Typical Value
Thermal Properties					
Glass Transition Temp. (Tg)	DMA	IPC-TM-650 2.4.24.4	°C	170 minimum	180
Td		ASTM D3850	°C	350 minimum	368
Tg	DSC	IPC-TM-650 2.4.25	°C	160 minimum	168
T288		IPC-TM-650 2.4.24.1	Minute	5 minimum	20
Thermal Stress @ 288°C		IPC-TM-650 2.4.13.1	Second	Pass 10s	>600
Electrical Properties					
Dielectric Constant @ 1GHz		IPC-TM-650 2.5.5.9	–	5.4 maximum	3.40
Dissipation Factor @ 1GHz		IPC-TM-650 2.5.5.9	–	0.035 maximum	0.016
Volume Resistivity	After Moisture Resistance	IPC-TM-650 2.5.17.1	MΩ-cm	1.0E+4 minimum	5.0E+8
	E-24/125	IPC-TM-650 2.5.17.1	MΩ-cm	1.0E+3 minimum	5.0E+6
Surface Resistivity	After Moisture Resistance	IPC-TM-650 2.5.17.1	MΩ	1.0E+4 minimum	5.0E+7
	E-24/125	IPC-TM-650 2.5.17.1	MΩ	1.0E+3 minimum	5.0E+6
Mechanical Properties					
Peel Strength (Hoz)		IPC-TM-650 2.4.8	lb/in (N/mm)	4 (0.7) minimum	5 (0.88)
Flexural Strength		IPC-TM-650 2.4.4	Kpsi (MPa)	60 (415) minimum	72 (500)
Physical Properties					
Moisture Absorption		IPC-TM-650 2.6.2.1	%	0.80 maximum	0.18
Flammability		UL-94	Rating	V-0 minimum	V-0

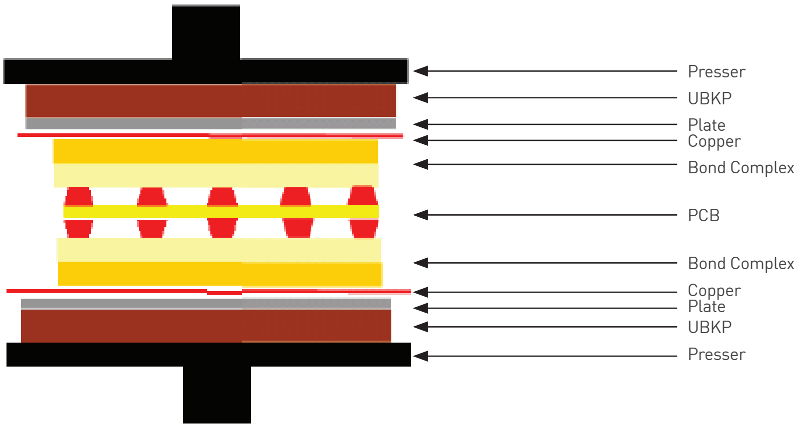
Note: All test data provided are typical values and are not intended to be specification values.

Process for pre-bonding

> Build-Up for pre-bonding



> Build-Up for Multilayer



Press Profile

1. Heating rate (Rate of Rise) of material 80-130ºC, Programmable Press: 2.0-3.0ºC/min [Material Temperature]
2. Curing Temperature & Time: >60min at more than 185ºC [Material Temperature]
3. Full Pressure: ≥350psi
4. Full Pressure Temperature: 70-80ºC
5. Vacuuming should be continued until over 180ºC [Material Temperature]
6. Cold Press Condition: Keep Plate @ Room Temperature by water; Pressure:100psi; Dwell Time: 60minutes