ventec INTERNATIONAL GROUP

pro-bond 7C & 7F - VT-770 RCC & RCF

UL Approval: E214381 Version: 23/03/2024

Ultra Low Dk/Df Resin Coated Copper & Resin Coated Film Bondply

Resin Coated Copper (RCC) Bondply is an unreinforced adhesive system coated onto ultra-thin copper foil (1.5-5.0μm supported on an 18μm carrier foil) for use in high performance and high reliability multilayer PCB stack-ups.

Resin Coated Film (RCF) Bondply is an unreinforced adhesive system coated onto PET film for use in high performance and high reliability multilayer PCB stack-ups.

VT-770 is a high Tg, ceramic-filled, ultra low Dk (2.8) & Df (0.0025), halogen-free thermoset resin system, specifically designed for use in multilayer PCBs with Ventec tec-speed laminates & prepregs, and it is also fully compatible with other resin systems in hybrid stack-ups.

General Information

- Halogen free, Dk 2.8 & Df 0.0025
- Ultra-thin dielectric layer
- Suitable for sequential laminations
- Unreinforced adhesive for better electrical isotropic consistency
- Excellent flow characteristics and filling ability, designed for fine line and space
- Laser drillable
- Excellent laser hole pattern consistency

Application

- Interposers
- Anti-shake Coils
- Probe Cards
- Packaging Modules

Storage Condition

		RCC & RCF	
Storage Condition	Temperature	Below 23˚C (73˚F)	Below 5˚C (41˚F)
	Relative Humidity	Below 55% RH	/

Disclaimer:

- The information and data contained in this technical literature is based on data and knowledge correct at the time of publishing/printing and 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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Availability

Dielectric PPT	25µ/50µ (0.0010"/0.0020")
Copper Foil Thickness	(18µm Carrier Foil) 1.5µm/2.0µm/3.0µm/5.0µm
Panel Size	610mmx457mm (24"x18")

RCC Part Numbers

Description	Part Number
pro-bond 7C RCC Cu 1.5µm Die 25µm	770-C15-025
pro-bond 7C RCC Cu 2.0µm Die 25µm	770-C20-025
pro-bond 7C RCC Cu 3.0µm Die 25µm	770-C30-025
pro-bond 7C RCC Cu 5.0µm Die 25µm	770-C50-025
pro-bond 7C RCC Cu 1.5µm Die 50µm	770-C15-050
pro-bond 7C RCC Cu 2.0µm Die 50µm	770-C20-050
pro-bond 7C RCC Cu 3.0µm Die 50µm	770-C30-050
pro-bond 7C RCC Cu 5.0µm Die 50µm	770-C50-050

Availability

Carrier Film Type	
PET (Standard)	T
Panel Size	
610mmx460mm (24"x18.11") - Standard	

RCF Part Numbers

Description	Part Number	PPT (µm)	Flow Range
pro-bond 7F RCF No Flow PPT 25µm	770-FT N-025	25	10~40
pro-bond 7F RCF Regular Flow PPT 25µm	770-FT R-025	25	40~80
pro-bond 7F RCF No Flow PPT 50µm	770-FT N-050	50	10~60
pro-bond 7F RCF Regular Flow PPT 50µm	770-FT R-050	50	60~100

Properties

Properties		Test Method	Units	Typical Value
Electrical Properties				
Dk (RC 50%)	@ 1GHz	IPC-TM-650 2.5.5.13	–	3.1
	@ 10GHz			2.8
Df	@ 1GHz	IPC-TM-650 2.5.5.13	–	0.0020
	@ 10GHz			0.0025
Thermal Properties				
Tg	DMA	IPC-TM-650 2.4.24.4	°C	260
Td	TGA	ASTM D3850	°C	410
CTE	α1 (<Tg)	IPC-TM-650 2.4.24	ppm/°C	17
	α2 (>Tg)		ppm/°C	50
Thermal Stress	@ 288°C (10s/Cycle)	IPC-TM-650 2.4.13.1	Second	>300
Thermal Conductivity		ASTM D5470	W/mK	0.55
Mechanical Properties				
Peel Strength - 5µm (Plated to 20µm)		IPC-TM-650 2.4.8	N/mm (lb/in)	0.61 (3.5)
Tensile Modulus	40°C	IPC-TM-650 2.4.24.4	GPa	8~10
Physical Properties				
Moisture Absorption		IPC-TM-650 2.6.2.1	%	0.10
Flammability (in Lab)		UL 94	Rating	V-0

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