pro-bond 20F - VT-8728 RCF

UL Approval: E214381 Version: 09/08/2024

Ultra Low Dk/Df Resin Coated Film Bondply

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-8728 is an ultra-low Dk (2.85) & low Df (0.0020), high Tg, ceramic-filled hydrocarbon, halogen-free thermoset resin system, specifically designed for use in multilayer PCBs with Ventec tec-speed 20.0 laminates & prepregs and tec-speed 30.0 laminates. It is also fully compatible with other resin systems in hybrid stack-ups.

General Information

- Halogen free, Dk 2.85 & Df 0.0020
- Stable Dk over temperature
- Ultra-thin dielectric layer
- Suitable for sequential laminations
- Unreinforced adhesive for better electrical isotropic consistency
- Excellent flow characteristics and filling ability, designed for inner layer 1oz
- Laser drillable
- Excellent laser hole pattern consistency

Application

- Filters & Couplers
- Military, Aerospace Radar
- Automotive Radar
- Beam Steering Antenna
- IC Test Sockets
- RF multilayer especially for mmWave frequency, high speed digital and ATE.

Availability

Press Ply Thickness
50µ/110µ (0.0020"/0.0043")
Panel Size
610mmx457mm (24"x18")

Other options could be available upon request.

Carrier Film Type	
PET (Standard)	T

Part Numbers

Description	Part Number	Thickness (µm)	Flow Range
pro-bond 20F RCF No Flow PPT 50µm	8728-FT N-050	50	10~30
pro-bond 20F RCF Low Flow PPT 50µm	8728-FT L-050	50	30~80
pro-bond 20F RCF No Flow PPT 110µm	8728-FT N-110	110	10~60
pro-bond 20F RCF Low Flow PPT 110µm	8728-FT L-110	110	60~120
pro-bond 20F RCF Regular Flow PPT 110µm	8728-FT R-110	110	120~180

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Properties

Properties		Test Method	Units	Typical Value	
				8728-FN/FL	8728-FR
Electrical Properties					
Dk (RC 50%)	@ 1GHz	IPC-TM-650 2.5.5.13	–	3.15	3.05
	@ 10GHz			2.96	2.85
Df	@ 1GHz	IPC-TM-650 2.5.5.13	–	0.0015	
	@ 10GHz			0.0020	
Thermal Properties					
Tg	DMA	IPC-TM-650 2.4.24.4	°C	210	
Td	TGA	ASTM D3850	°C	400	
CTE	α1 (<Tg)	IPC-TM-650 2.4.24	ppm/°C	65 (-50 - 125°C)	
	α2 (>Tg)		ppm/°C	85	
Thermal Stress	@ 288°C (10s/Cycle)	IPC-TM-650 2.4.13.1	Second	>300	
Thermal Conductivity		ASTM D5470	W/mK	0.6	
Mechanical Properties					
Peel Strength (1oz)		IPC-TM-650 2.4.8	N/mm (lb/in)	1.14 (6.5)	
Tensile Modulus	40°C	IPC-TM-650 2.4.24.4	GPa	5.5	
Physical Properties					
Moisture Absorption		IPC-TM-650 2.6.2.1	%	0.08	
Flammability (in Lab)		UL 94	Rating	V-0	

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

Storage Condition

		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.