

# VT-901PP NF/LF LCTE

UL Approval: E214381 Version: 29/09/2023 /40 /41 /42

## Polyimide No Flow / Low Flow Prepreg

### General Information

Polyimide Low and No Flow product using novel chemistry for flow control and enhanced bond strength designed for use in polyimide rigid-flex applications.

- > Improved for high layer count rigid-flex
- > T<sub>g</sub> 200°C
- > Low Z-CTE
- > Meets IPC-4101E Specification sheets /40, /41 & /42
- > Compatible with Lead Free processing



### Storage Condition

		Prepreg	
Storage Condition	Temperature	< 23°C (73°F)	< 5°C (41°F)
	Relative humidity	< 55%	/

### Availability

Product	Type	Glass Fabric	Resin Content	Flow Range		Pressed Thickness	
				(mil)	(mm)	(mil/ply)	(mm/ply)
VT-901 PP Polyimide T <sub>g</sub> 200°C	106 NF	106	64%	10~50	0.25~1.25	1.8	0.046
	1080 NF	1080	60%	10~50	0.25~1.25	2.8	0.071
	106 LF	106	65%	60~120	1.5~3	1.9	0.048
	106 LF	106	68%	60~120	1.5~3	2.1	0.053
	1080 LF	1080	62%	60~120	1.5~3	3.1	0.079

Note: \* Built on IPC-TM650 2.3.17.2

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### Properties Sheet of Pressed No Flow Prepreg

Test Item		Test Method (IPC-TM-650)	Unit	Typical Value
Tg	TMA	2.4.24	°C	200
Td	TGA	ASTM D3850	°C	390
Electric Strength		2.5.6.2	KV/mm	54
Peel Strength with 1oz Cu	As Received	2.4.8	Lb/in	8-9
	After Thermal stress			8-9
Peel strength with CVL		2.4.8	Lb/in	7
Moisture Absorption	D24 / 23	2.6.21	%	0.20
	After PCT	1atm., 121°C, 1hour	%	0.22
X,Y-axis CTE	30~125°C	2.4.24	ppm/°C	12~15
Z-axis CTE	Before Tg	2.4.24	ppm/°C	50
	After Tg		ppm/°C	230
	50~260°C		%	2.5
Thermal Stress	Solder dip at 288°C	2.4.13.1	Second	>300
Breakdown Voltage	D48/50+ D0.5/23	2.5.6	KV	>60
Arc Resistance	D48/50+ D0.5/23	2.5.1	Second	150
DK (RC60% at 1GHz)	C24/23/50	2.5.5.9	–	3.8
DF (RC60% at 1GHz)	C24/23/50	2.5.5.9	–	0.015
Flammability	As Received	UL94	Rating	V-0

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

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### Press Condition

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Heating rate of materials	2.5-3.5°C/min (4.5~6.5°F/min)
Cure Temperature	≥190°C
Cure Time	>90min
Vacuum should be continued until over 140°C (284°F) [Material Temperature]	
Pressure on materials: Start with 100psi, Full pressure: 250~450psi	
Cold Press: Keep Plate @ Room Temperature by water; Pressure:100psi; Dwell Time: 60minutes	

Contact Ventec technical service to discuss the specific condition.

