

VT-901

UL Approval: E214381 Version: B7 /40 /41

Laminate/Prepreg

General Information

- > Tg 250°C
- > High Td
- > Improved Fracture Toughness
- > Low Z-axis CTE
- > Meets NASA requirements for no visible bromine



Application

- > Chip Manufacturers
- > Engine/Flight Controls
- > Power Supply/Backplane
- > Military and Burn-in Board

Availability

- > Core Thickness: 0.002" (0.05mm) to 0.125" (3mm), available in sheet or panel form
- > Copper Foil: 1/4oz to 6oz
- > Prepregs are available in roll or panel form
- > E-Glass styles: 7628, 1506, 2113, 2313, 3313, 2116, 1080, 106 etc

Note: Double side treated copper foil and reverse copper foil are not suggested using on VT-901 laminates because the peel strength would not be as good as conventional materials.

Properties		Prepreg		Laminate
Storage Condition	Temperature	Below 23°C (73°F)	Below 5°C (41°F)	Room
	Relative humidity	Below 55% RH	/	/
Shelf Life		3 months	6 months	24 months (airproof)

The prepreg exceeding shelf life should be retested.

CORPORATE HEADQUARTERS

Ventec Electronics Co. Ltd.
308 TaiShan Rd,
New District Suzhou,
Jiangsu, P.R. China 215129
T: +86 512-68091810
Email: sales@ventec.com.cn

EMEA REGIONAL HEADQUARTERS

Ventec Europe
Unit 1 Trojan Business Centre,
Tachbrook Park Estate,
Leamington-Spa, CV34 6RH, UK
T: +44 1926-889822
Email: sales@ventec-europe.com

AMERICAS REGIONAL HEADQUARTERS

Ventec USA
21 Water Street, Amesbury,
Massachusetts, MA 01913,
United States of America
T: +1 978-5219700
Email: saleseast@ventec-usa.com

www.ventec laminates.com

VT-901

Laminate/Prepreg

UL Approval: E214381 Version: B6 /40 /41

Properties Sheet IPC-4101E /40 /41

Properties	Test Method	Units	Specification	Typical Value
Thermal Properties				
Tg	DSC	IPC-TM-650 2.4.25	°C	-
	TMA	IPC-TM-650 2.4.24	°C	200 minimum 250
Td		ASTM D3850	°C	- 395
T260		IPC-TM-650 2.4.24.1	Minute	- >60
T288		IPC-TM-650 2.4.24.1	Minute	- >60
Thermal Stress @ 288°C		IPC-TM-650 2.4.13.1	Second	Pass 10s >1200
Z-axis CTE	Before Tg	IPC-TM-650 2.4.24	ppm/°C	- 50
	After Tg	IPC-TM-650 2.4.24	ppm/°C	- 150
	Total Expansion (50~260°C)	IPC-TM-650 2.4.24	%	- 1.4
X-Y CTE		IPC-TM-650 2.4.24	ppm/°C	- 11~12
MOT		UL 94	°C	- 140
Electrical Properties				
DK @ 1GHz RC 40%		IPC-TM-650 2.5.5.9	-	5.4 maximum 4.05
DF @ 1GHz RC 40%		IPC-TM-650 2.5.5.9	-	0.035 minimum 0.012
Volume Resistivity	After Moisture Resistance	IPC-TM-650 2.5.17.1	MΩ-cm	1.0E+6 minimum 5.0E+8
	E-24/125	IPC-TM-650 2.5.17.1	MΩ-cm	1.0E+6 minimum 5.0E+6
Surface Resistivity	After Moisture Resistance	IPC-TM-650 2.5.17.1	MΩ	1.0E+6 minimum 5.0E+7
	E-24/125	IPC-TM-650 2.5.17.1	MΩ	1.0E+6 minimum 5.0E+6
Electrical Strength		IPC-TM-650 2.5.6.2	Volt/mil (KV/mm)	762 (30) minimum 1200~1400 (54)
Dielectric Breakdown		IPC-TM-650 2.5.6	KV	40 minimum 60
Comparative Tracking Index (CTI)		ASTM D3638	Rating (Volt)	- Grade 4 (100~175)
Arc Resistance		ASTM D495	Second	120 minimum 150
Mechanical Properties				
Peel Strength (1oz)	As received	IPC-TM-650 2.4.8	lb/in (N/mm)	- 6~9 (1.05~1.58)
	After thermal stress	IPC-TM-650 2.4.8	lb/in (N/mm)	5.14 (0.90) minimum 6~9 (1.05~1.58)
Flexural Strength	Warp	IPC-TM-650 2.4.4	Kpsi (MPa)	60 (415) minimum 600 (87)
	Fill	IPC-TM-650 2.4.4	Kpsi (MPa)	47 (325) minimum 500 (72)
Physical Properties				
Moisture Absorption		IPC-TM-650 2.6.2.1	%	1.0 maximum 0.2
Flammability		UL-94	Rating	HB minimum V0

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

CORPORATE HEADQUARTERS

Ventec Electronics Co. Ltd.
 308 TaiShan Rd,
 New District Suzhou,
 Jiangsu, P.R. China 215129
 T: +86 512-68091810
 Email: sales@ventec.com.cn

EMEA REGIONAL HEADQUARTERS

Ventec Europe
 Unit 1 Trojan Business Centre,
 Tachbrook Park Estate,
 Leamington-Spa, CV34 6RH, UK
 T: +44 1926-889822
 Email: sales@ventec-europe.com

AMERICAS REGIONAL HEADQUARTERS

Ventec USA
 21 Water Street, Amesbury,
 Massachusetts, MA 01913,
 United States of America
 T: +1 978-5219700
 Email: saleseast@ventec-usa.com

www.ventec laminates.com