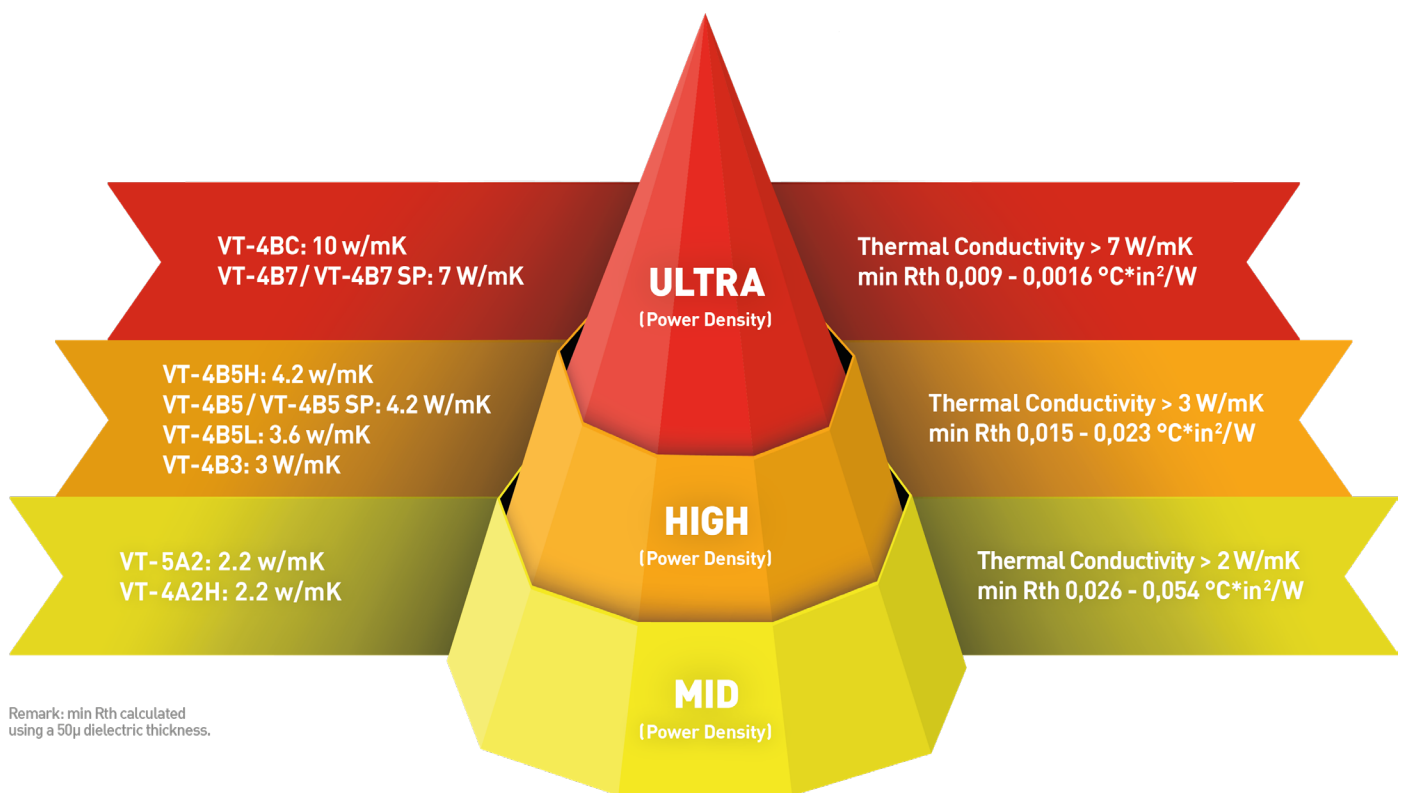




VT-4B5 SP

Aluminum Base Laminate

UL Approval: E214381 Version: B1



Remark: min Rth calculated using a 50μ dielectric thickness.

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
720 Lee St., Elk Grove Village,
Illinois, IL 60007,
United States of America
T: +1 630-4221627
Email: saleseast@ventec-usa.com

www.ventecclaminates.com

VT-4B5 SP

Aluminum Base Laminate

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General Information

- > Thermal conductivity -- 4.2W/mK
- > Ceramic Filled
- > Halogen Free
- > Flammability UL94 V-0
- > MOT 130°C
- > Selective Preference Dielectric for Ultra Low Thermal Resistance

Application

- > Matrix LED for Auto Bulb
- > High Power LED for Projector
- > Electric Power Steering

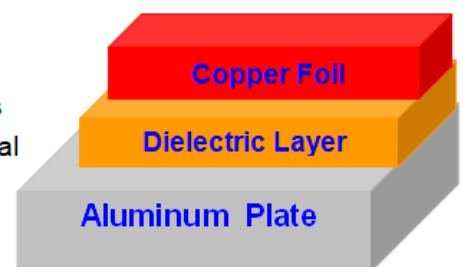
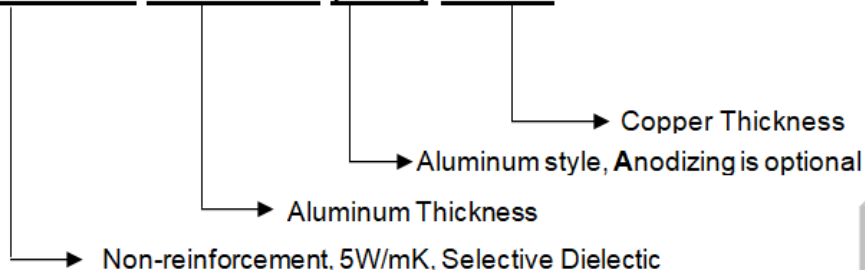
Storage Condition & Shelf Life

		Laminate
Storage Condition	Temperature	Room
	Relative humidity	/
Shelf Life		24 months

The RCF exceeding shelf life should be retested.

Designation of IMS Laminate

VT-4B5 SP 1.0mm Alu (5052) 1oz Cu



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VT-4B5 SP

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Laminate Properties

Item		Test Method (IPC-TM-650)	Unit	VT-4B5 SP
Thermal Conductivity		ISO22007-2	W/m*K	4.2
Thermal Impedance		ISO22007-2	°C*in ² /W	0.015
Tg	DSC	2.4.25	°C	120
Td	TGA	ASTM D3850	°C	380
Thermal Stress	Solder Dip @ 288°C	2.4.13.1	Minute	≥5
Hi-Pot Withstand	DC	2.5.7.2	V	1000
Breakdown Voltage	AC	2.5.6.3	V	3000
Dk @ 1MHz	C-24 /23 / 50	2.5.5.3	—	4.8
Df @ 1MHz	C-24/ 23 / 50	2.5.5.3	—	0.016
Volume Resistance	After Moisture	2.5.17.1	MΩ-cm	5.0E+8
	E-24/125			3.0E+7
Surface Resistance	After Moisture	2.5.17.1	MΩ	2.0E+7
	E-24/125			5.0E+6
Peel strength (1oz)	As Received	2.4.8	Lb/in	7
CTI	As Received	ASTM D3638	V	600
Flammability	As Received	UL 94	Rating	V-0
RTI	Electric	UL 94	°C	130
	Mechanical	UL 94	°C	130

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

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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VT-4B5 SP

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Availability

Laminate

Item		Availability
Dielectric Thickness		50 µm (SP: selected)
Standard Size	Imperial	18.11*24.02, 20.08*24.02, 20.98*24.02, 18.11*48.03, 20.08*48.03, 20.98*48.03
	Metric	460*610, 510*610, 533*610, 460*1220, 510*1220, 533*1220
Copper Weight		1/3oz, Hoz, 1oz, 2oz, 3oz, 4oz, 6oz
Aluminum Thickness		0.6mm, 0.8mm, 1.0mm, 1.2mm, 1.5mm, 2.0mm, 3.0mm
Aluminum Alloy		1100, 5052, or as required

Protective Film for Aluminium Plate

Type	Material	Max Operation Temperature
Standard	PET	170 °C
High Temperature	Polyimide	270 °C

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