

**Data Sheet**

**Halogen Free  
& Narrow Pitch IC Substrate Materials**

**MEGTRON**  **Laminate R-1515A**

Feb. 2015 No.15020301

**Partnering to go beyond.**

**Electronic Materials**  
Panasonic Corporation

ПАНИСОН  
МЕХНОЛОЖИЈС

# Specification / Laminate R-1515A

Property		Units	Test Method	Condition	Value	
THERMAL	Glass Transition Temp ( Tg )		C	DMA	As received	205
	Thermal Decomposition Temp ( Td )			TGA		390
	Time to Delam ( T260 )	With Cu	min	IPC TM-650 2.4.24.1		> 120
	Time to Delam ( T288 )					> 120
	CTE : $\alpha 1$	X - axis	ppm / C	IPC TM-650 2.4.24	< Tg	11 - 13
		Y - axis				11 - 13
		Z - axis				30
	CTE : $\alpha 2$	Z - axis			> Tg	140
Thermal Conductivity		W / nK	Laser Flash	25 C	0.7	
ELECTRICAL	Volume Resistivity		M $\Omega$ - cm	IPC TM-650 2.5.17.1	C-96/35/90	1 x 10 <sup>9</sup>
	Surface Resistivity					M $\Omega$
	Dielectric Constant ( Dk )	1GHz	-	IPC TM-650 2.5.5.9	C-24/23/50	4.8
	Dissipation Factor ( Df )					0.015
PHYSICAL	Water Absorption		%	IPC TM-650 2.6.2.1	D-24/23	0.12
	Flexural Strength	X	Gpa	IPC TM-650 2.4.4	As Received	500
		Y				460
	Flexural Modulus	X	JIS C6481			29
		Y				27
	Peel Strength	35 $\mu$ m	kN / m	IPC TM-650 2.4.8		
Flammability		-	UL	C-48/23/50		0.5

The sample thickness is 0.8mm.

\*The data above show actual values and are not guaranteed.

## ++ Before purchase ++

- \* If delivery specifications have been agreed upon, descriptions in the delivery specifications take precedence.
- \* Specifications and appearances are subject to change without prior notice for product improvement.
- \* For details of the products contained in this catalog, contact your dealer or our sales representative.
- \* ALL data are our actual values and not assured values.

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#### 【Technical Marketing】

- \* Japan (Osaka) TEL: 81-6-6908-8132
- USA (Cupertino) TEL: 1-408-861-3946
- Austria (Enns) TEL: 43-7223-883-0
- China (Guangzhou) TEL: 86-20-8713-0888

#### 【Sales Offices】

- China (Hong Kong) TEL: 852-2956-3118
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- Austria (Enns) TEL: 43-7223-883-0
- Japan (Osaka) TEL: 81-6-6904-2771
- USA (Cupertino) TEL: 1-408-861-3946

Panasonic Corporation  
 Automotive & Industrial Systems Company  
 Electronic Materials Business Division  
 Circuit Board Materials Division.  
 Head Office :1006 Kadoma. Kadoma. Osaka 571-8506  
 TEL: 81-6-6908-1101  
<http://industrial.panasonic.com/>

