



# Product Template - Change URL

Large, short, quick description,

Longer, more complete description.

## ORDERING INFORMATION:

Contact your local sales representative or visit [www.isola-group.com](http://www.isola-group.com) for further information.

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## Performance

Tg °C

Td °C

Dk

Df

zIPC- 4101C /21 /24 /26 /98 /101 /126

UL - File Number E41625

Qualified to UL's MCIL Program

## Product Features

- Industry Recognition
- Performance Attributes
- Processing Advantages

## Product Availability

- Standard Material Offering: Laminate
- Copper Foil Type
- Copper Weight
- Standard Material Offering: Prepreg
- Glass Fabric Availability

# Product Template - Change URL Specifications

Property		Typical Values			
		Typical Value	Specification	Units	Test Method
				Metric (English)	IPC-TM-650 (or as noted)
Test data generated from		—	—	%	2.3.16.2
Glass Transition Temperature (Tg) by DSC		—	—	°C	2.4.25
Glass Transition Temperature (Tg) by DMA		—	—	°C	2.4.24.2
Glass Transition Temperature (Tg) by TMA		—	—	°C	2.4.24
Decomposition Temperature (Td) by TGA @ 5% weight loss		—	—	°C	2.4.24.2
Time to Delaminate by TMA (Copper removed)	A. T260 B. T288	—	—	Minutes	2.4.24.1
Z-Axis CTE	A. Pre-Tg B. Post-Tg C. 50 to 260°C, (Total Expansion)	—	—	ppm/°C ppm/°C %	2.4.24
X/Y-Axis CTE	Pre-Tg	—	—	ppm/°C	2.4.24.1
Thermal Conductivity		—	—	W/mK	ASTM E1952
Thermal Stress 10 sec @ 288°C (550.4°F)	A. Unetched B. Etched	Pass	—	Pass Visual	2.4.13.1
Dk, Permittivity	A. @ 1 GHz B. @ 2 GHz C. @ 5 GHz D. @ 10 GHz	—	—	—	Bereskin Stripline
Df, Loss Tangent	A. @ 1 GHz B. @ 2 GHz	—	—	—	Bereskin Stripline
Dk, Permittivity	A. @ 5 GHz B. @ 10 GHz	—	—	—	Bereskin Stripline
Volume Resistivity	A. C-96/35/90 B. After moisture resistance C. At elevated temperature	—	—	MΩ-cm	2.5.17.1
Surface Resistivity	A. C-96/35/90 B. After moisture resistance C. At elevated temperature	—	—	MΩ	2.5.17.1
Dielectric Breakdown		—	—	kV	2.5.6
Arc Resistance		—	—	Seconds	2.5.1
Electric Strength (Laminate & laminated prepreg)		—	—	kV/mm (V/mil)	2.5.6.2
Comparative Tracking Index (CTI)		—	—	Class (Volts)	UL 746A ASTM D3638
Peel Strength	A. Low profile copper foil and very low profile copper foil all copper foil >17 μm [0.669 mil]	—	—	N/mm (lb/inch)	2.4.8
	B. Standard profile copper	—	—		2.4.8.2
	1. After thermal stress	—	—		2.4.8.3
	2. At 125°C (257°F)	—	—		2.4.8.3
Flexural Strength	A. Length direction	—	—	lb/inch <sup>2</sup>	2.4.4
	B. Cross direction	—	—		
Tensile Strength	A. Length direction	—	—	lb/inch <sup>2</sup>	ASTM D3039
	B. Cross direction	—	—		
Poisson's Ratio	A. Length direction	—	—	—	ASTM D3039
	B. Cross direction	—	—		
Moisture Absorption		—	—	%	2.6.2.1
Flammability (Laminate & laminated prepreg)		V-0	—	Rating	UL 94
Max Operating Temperature		130	—	°C	UL 796

The data, while believed to be accurate and based on analytical methods considered to be reliable, is for information purposes only. Any sales of these products will be governed by the terms and conditions of the agreement under which they are sold.

[isola.keostaging.com/products/printed-circuit-materials/product-template/](https://isola.keostaging.com/products/printed-circuit-materials/product-template/)

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