TU-622-5

Core: TU-622-5

Prepreg: TU-62P-5

TU-622-5/ TU-62P-5 laminate/ prepreg are made of high quality woven E-glass coated with the epoxy resin system, which provides the laminates with UV-block characteristic, and compatibility with automated optical inspection (AOI) process. TU-62P-5 is designed for use with TU-622-5 following standard processing conditions to make FR-4 thin-core multilayer printed circuit boards..

Performance and Processing Advantages

- Cost effective way to meet the higher Tg requirement
- Use friendly FR-4 processing conditions such as oxide, press, drilling and desmear
- Chemical and thermal resistance property
- Superior dimensional stability, thickness uniformity and flatness
- Fluorescence for AOI
- Optical characteristics provide UV-block property
- High interlayer bonding strength with optimum resin flow
- Superior dielectric thickness control
- Wide processing window for maximum lamination performance

Industry Approvals

- IPC-4101 Type Designation : /21
- UL Designation - ANSI Grade: FR-4.0
- UL File Number: E189572
- Flammability Rating: 94V-0
- Maximum Operating Temperature: 130°C

Standard Availability

- Thickness: 0.002"[0.05mm] to 0.062"[1.58mm], available in sheet or panel form
- Copper Foil Cladding: 1/3 to 5oz (HTE) for built-up; 1/3 to 12oz (HTE) for double sides and H to 2oz (MLS)
- Prepregs: Available in roll or panel form
- Glass Styles: 106, 1080, 2113, 2116, 1506 and 7628 etc.

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Typical Properties for TU-622-5 Laminate

	Typical Values	Test Condition	SPEC
Thermal			
Tg (DMA) Tg (DSC) Tg (TMA) Td (TGA)	155 °C 145 °C 135 °C 310 °C	E-2/105+des	N/A
CTE x-axis CTE y-axis CTE z-axis	14~18 ppm/°C 14~18 ppm/°C 4.1 %	Ambient to Tg Ambient to Tg 50 to 260°C	N/A N/A N/A
Thermal Stress, Solder Float, 288°C	> 60 sec	A	> 10 sec
T-260	> 20 min	E-2/105+des	N/A
Flammability	94V-0	E-24/125+des	94V-0
Electrical			
Permittivity (RC50%) 1MHz 1GHz	 4.5 4.2	C-24/23/50	 < 5.4 N/A
Loss Tangent (RC50%) 1MHz 1GHz	 0.016 0.015	C-24/23/50	 < 0.035 N//A
Volume Resistivity	> 10^{10} MΩ·cm	C-96/35/90	> 10^{6} MΩ·cm
Surface Resistivity	> 10^{8} MΩ	C-96/35/90	> 10^{4} MΩ
Mechanical			
Flexural Strength Lengthwise Crosswise	 > 80,000 psi > 70,000 psi	 A A	 > 60,000 psi > 50,000 psi
Peel Strength, 1.0 oz. Cu foil	9~12 lb/in	A	> 4 lb/in
Bow and Twist 0.020"~0.031" 0.032:~0.065: >0.066"	 < 0.8% < 0.8% < 0.8%	A	 Max 1.5 Max 1.0 Max 1.0
Dimensional Stability	< 0.03%	E-4/105+E-2/150	< 0.03 %
Water Absorption	0.18 %	E-1/105+des+D-24/23	< 0.8 %

NOTE:
1. Property values are for information purposes only and not intended for specification.
2. Any sales of these products will be governed by the terms and conditions of the agreement under which they are sold.

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