



TU-768

Core: TU-768

Prepreg: TU-768P

TU-768/ TU-768P 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. These products are suitable for boards that need to survive severe thermal cycles, or to experience excessive assembly work. TU-768 laminates exhibit excellent CTE, superior chemical resistance and thermal stability plus CAF resistance property.

Applications

- Consumer Electronics
- Server, workstation
- Automotive

Performance and Processing Advantages

- Lead Free process compatible
- Excellent coefficient of thermal expansion
- Anti-CAF property
- Superior chemical and thermal resistance
- Fluorescence for AOI
- Moisture resistance

Industry Approvals

- IPC-4101E Type Designation : /21, /24, /26, /28, /98, /99, /101, /126
- IPC-4101E/126 Validation Services QPL Certified
- 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: 1/8 to 12 oz (HTE) for built-up; 1/8 to 3 oz (HTE) for double sides and H to 2 oz (MLS)
- Prepregs: Available in roll or panel form
- Glass Styles: 106, 1080, 2113, 2116, 1506 and 7628 etc.





Typical Properties for TU-768 Laminate			
	Typical Values	Test Condition	SPEC
Thermal			
Tg (DMA)	190 °C	E-2/105+des	N/A
Tg (DSC)	180 °C		
Tg (TMA)	170 °C		
Td (TGA)	350 °C		
CTE x-axis	11~15 ppm/°C	Ambient to Tg	N/A
CTE y-axis	11~15 ppm/°C	Ambient to Tg	N/A
CTE z-axis	2.7 %	50 to 260°C	< 3.0%
Thermal Stress, Solder Float, 288°C	> 60 sec	A	> 10 sec
T-260	> 60 min	E-2/105+des	> 30 min
T-288	> 15 min		> 15 min
Flammability	94V-0	E-24/125+des	94V-0
Electrical			
Permittivity (RC50%)	4.4/4.3 4.3 4.3	C-24/23/50	N/A
1GHz (SPC method/HP 4291B)			
5GHz (SPC method)			
10GHz (SPC method)			
Loss Tangent (RC50%)	0.019/0.018 0.021 0.023	C-24/23/50	N/A
1GHz (SPC method/HP4291B)			
5GHz (SPC method)			
10GHz (SPC method)			
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
Electric Strength	> 40 KV/mm	-	> 30 KV/mm
Dielectric Breakdown Voltage	> 50 KV	-	> 40 KV
Mechanical			
Young's Modulus	25 GPa 22 GPa	A	N/A
Warp Direction			
Fill Direction			
Flexural Strength	> 60,000 psi > 50,000 psi	A	> 60,000 psi
Lengthwise		A	> 50,000 psi
Crosswise			
Peel Strength, 1.0 oz. Cu foil	7~9 lb/in	A	> 4 lb/in
Water Absorption	0.18 %	E-1/105+des+D-24/23	< 0.8 %

NOTE:

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

