



S1170G

(UL ANSI: FR-15.1) High Tg, Halogen-free

FEATURES

- Anti-CAF capability
- Lead-free compatible
- Excellent through-hole reliability
- Halogen, antimony and red phosphorous free

APPLICATIONS

Computer
Instrument
Smartphone
Consumer electronics
Automotive electronics

GENERAL PROPERTIES

| Test Items | Test Method | Test Condition | Unit | Typical Value | |
|---------------------------|---------------------|-------------------|--------------|----------------------|-------|
| Tg | IPC-TM-650 2.4.25D | DSC | °C | 175 | |
| | IPC-TM-650 2.4.24.4 | DMA | °C | 180 | |
| Td | IPC-TM-650 2.4.24.6 | TGA (5% W.L) | °C | 390 | |
| T288 | IPC-TM-650 2.4.24.1 | TMA | min | 60 | |
| T260 | IPC-TM-650 2.4.24.1 | TMA | min | >60 | |
| Thermal Stress | IPC-TM-650 2.4.13.1 | 288°C, solder dip | s | >100 | |
| CTE (Z-axis) | IPC-TM-650 2.4.24 | Before Tg | ppm/°C | 45 | |
| | IPC-TM-650 2.4.24 | After Tg | ppm/°C | 210 | |
| | IPC-TM-650 2.4.24 | 50-260°C | % | 2.3 | |
| Permittivity (1GHz) | IPC-TM-650 2.5.5.9 | C-24/23/50 | - | 4.4 | |
| Loss Tangent (1GHz) | IPC-TM-650 2.5.5.9 | C-24/23/50 | - | 0.010 | |
| Volume Resistivity | IPC-TM-650 2.5.17.1 | C-96/35/90 | MΩ-cm | 5.65×10 ⁷ | |
| Surface Resistivity | IPC-TM-650 2.5.17.1 | C-96/35/90 | MΩ | 5.99×10 ⁶ | |
| Arc Resistance | IPC-TM-650 2.5.1 | D-48/50+D-0.5/23 | s | 180 | |
| Dielectric Breakdown | IPC-TM-650 2.5.6 | D-48/50+D-0.5/23 | kV | >45 | |
| Peel Strength (1oz) | IPC-TM-650 2.4.8 | 288°C/10s | N/mm [lb/in] | 1.3 [7.43] | |
| Flexural Strength (LW/CW) | IPC-TM-650 2.4.4 | A | Mpa | 550/450 | |
| Water Absorption | IPC-TM-650 2.6.2.1 | D-24/23 | % | 0.12 | |
| Flammability | UL94 | C-48/23/50 | Rating | V-0 | |
| Halogen Content | Br | EN 14582 | A | ppm | ≤900 |
| | Cl | | | | ≤900 |
| | Br+Cl | | | | ≤1500 |

- Remarks:
1. Specification sheet: IPC-4101/130, is for your reference only.
 2. All the typical value is based on the 1.6mm (8*7628) specimen.
 3. All the typical value listed above is for your reference only, please turn to Shengyi Technology Co., Ltd for detailed information, and all rights from this data sheet are reserved by Shengyi Technology Co., Ltd.



S1170GB PREPREG

(UL ANSI: FR-15.1) Bonding Prepreg For S1170G

PREPREG PARAMETERS

| Glass fabric type | Resin content (%) | Cured thickness (mm) | Standard size (Roll type) |
|-------------------|-------------------|----------------------|---------------------------|
| 106/1037 | 72 | 0.050 | 1.260m×150m |
| | 76 | 0.060 | |
| 1080/1078 | 64 | 0.075 | 1.260m×300m |
| | 68 | 0.087 | |
| 2313 | 55 | 0.097 | |
| 2116 | 59 | 0.109 | 1.260m×250m |
| | 52 | 0.115 | |
| 1506 | 55 | 0.125 | 1.260m×150m |
| | 45 | 0.155 | |
| 7628 | 48 | 0.167 | |
| | 43 | 0.189 | |
| | 46 | 0.204 | |
| | 48 | 0.214 | |
| | 50 | 0.223 | |

Other type, resin content and size could be available upon request.

HOT PRESSING CYCLE

- The heat-up rate depends on the inner copper or the structure of multilayer PCB.
- Curing time: >60min (190~200℃).
- If you need any more detail information, please turn to Shengyi Technology Co., Ltd.

STORAGE CONDITION

- 3 months when stored at < 23℃ and <50% RH.
- 6 months when stored at <5℃. Normalize in room temperature for at least 4h before using.
- Beware of moisture, always keep wrapped in damp-proof material. Keeping in normal condition, prepreg might absorb moisture and its bonding strength would be weakened.
- Avoid UV-rays and strong light.

PURCHASING INFORMATION

| Thickness | Copper foil | Standard size |
|-----------------|----------------|--|
| 0.05mm to 3.2mm | 12um to 105 um | 1,020mm ×1,220mm(40"×48") 915mm ×1,220mm(36"×48") 1,070mm ×1,220mm(42"×48") |

Remarks: Other sheet size and thickness could be available upon request.