

Circuit Board Materials
電子回路基板材料

For automotive components, etc. (many applications) multi-layer circuit board materials

Laminate **R-1766** Prepreg **R-1661**

Excellent multilayer lamination

Excellent workability

Dimensional stability

Proposals 提案

1. Good secondary lamination processability, and excellent adhesion between the layers Compatible with high-speed drilling processability
2. Excellent dimensional stability
3. Flammability UL94V-0
4. Line-up of clearpregs with reduced occurrence of resin powder

Applications 用途

Automotive components, Amusement, Digital appliance,
Mobile product, Measuring instruments, Small and medium-sized computer,
Semiconductor test equipment, etc.

Specifications 定格

| Nominal thickness 公称厚さ | | Thickness tolerance 厚さ許容差 | Copper foil thickness 銅箔厚さ |
|------------------------|---|---------------------------|--|
| 0.1mm | Excluding copper foil thickness for less than 0.8 mm. | ±0.03mm | 0.012mm (12 μm) 0.018mm (18 μm) 0.035mm (35 μm) 0.070mm (70 μm) |
| 0.2mm | | ±0.04mm | |
| 0.3mm | | ±0.05mm | |
| 0.4mm | | ±0.06mm | |
| 0.5mm | | ±0.07mm | |
| 0.6mm | | ±0.08mm | |
| 0.8mm | Including copper foil thickness for 0.8 mm or more. | ±0.09mm | |
| 1.0mm | | ±0.11mm | |
| 1.2mm | | ±0.11mm | |

Note: For thickness tolerance of the thickness located midway in the thicknesses in the table, whichever is thicker shall be applied. (注) 公称厚さの中間に位置する厚さ許容差は、より厚い方の厚さ許容差とします。
Note: For detail dimensions, please contact us separately. (注) 詳細寸法につきましては、別途ご相談ください。

General Properties 一般特性

| Item 項目 | Test method 試験方法 | Condition 条件 | Unit 単位 | R-1766 |
|---------------------------------|----------------------------|--------------|---------|--------|
| Glass transition temp (Tg) | DSC | A | °C | 140 |
| Thermal decomposition temp (Td) | TG/DTA | A | °C | 315 |
| CTE x-axis 熱膨張係数 | α1 IPC TM-650 2.4.41 | A | ppm/°C | 11-13 |
| CTE y-axis 熱膨張係数 | | | | 13-15 |
| CTE z-axis 熱膨張係数 | α1 IPC TM-650 2.4.24 | A | | 65 |
| | | | | α2 |
| T288 (with copper 銅付) | IPC TM-650 2.4.24.1 | A | min | 1 |
| Dielectric constant (Dk) 比誘電率 | 1GHz IPC TM-650 2.5.5.9 | C-24/23/50 | - | 4.3 |
| Dissipation factor (Df) 誘電正接 | | | | 0.016 |
| Water absorption 吸水率 | IPC TM-650 2.6.2.1 | D-24/23 | % | 0.14 |
| Flexural modulus 曲げ弾性率 | Fill ヨコ方向 JIS C6481 | A | GPa | 21 |
| Peel strength 銅箔引き剥かし強さ | 1oz IPC TM-650 2.4.8 | A | kN/m | 2.0 |

The sample thickness is 0.8mm 試験片の厚さは0.8mmです。

The above data is actual values and not guaranteed values.

More Product line from Panasonic

Please see the page for "Notes before you use"

- For automotive components multi-layer materials HIPER Series
- For automotive components and mobile product halogen-free multi-layer materials
- For many applications mass laminations Pre-multi

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