

Data Sheet

High Speed, Low Loss Multi-layer Materials

MEGTRON7

**Laminate R-5785
Prepreg R-5680**

Jan. 2015 No.15012228

Partnering to go beyond.

Electronic Materials
Panasonic Corporation

Specification / Laminate R-5785

| Property | | Units | Test Method | Condition | Value | | | |
|------------------|-----------------------------------|---------------|-----------------|---------------------|---------------------|---------------------|---------------------|---------|
| | | | | | E glass | Low- Dk glass | | |
| THERMAL | Glass Transition Temp (Tg) | | C | DSC | As received | 200 | 200 | |
| | | | | DMA | As received | 210 | 210 | |
| | Thermal Decomposition Temp (Td) | | C | TGA | As received | 400 | 400 | |
| | Time to Delam (T288) | | Min | Without Cu | IPC TM-650 2.4.24.1 | As received | > 120 | > 120 |
| | | | | With Cu | IPC TM-650 2.4.24.1 | As received | > 120 | > 120 |
| | CTE : $\alpha 1$ | | ppm / C | X - axis | IPC TM-650 2.4.24 | < Tg | 14 - 16 | 14 - 16 |
| | | | | Y - axis | IPC TM-650 2.4.24 | < Tg | 14 - 16 | 14 - 16 |
| Z - axis | | | | IPC TM-650 2.4.24 | < Tg | 42 | 42 | |
| CTE : $\alpha 2$ | | Z' - axis | ppm / C | IPC TM-650 2.4.24 | > Tg | 280 | 280 | |
| ELECTRICAL | Volume Resistivity | | M Ω - cm | IPC TM-650 2.5.17.1 | C-96/35/90 | 1 x 10 ⁹ | 1 x 10 ⁹ | |
| | Surface Resistivity | | M Ω | IPC TM-650 2.5.17.1 | C-96/35/90 | 1 x 10 ⁸ | 1 x 10 ⁸ | |
| | Dielectric Constant (Dk) | | - | @1GHz | IPC TM-650 2.5.5.9 | C-24/23/50 | 3.63 | 3.37 |
| | | | | @ 12GHz | *Note 1 | C-24/23/50 | 3.61 | 3.35 |
| | Dissipation Factor (Df) | | - | @1GHz | IPC TM-650 2.5.5.9 | C-24/23/50 | 0.002 | 0.001 |
| @ 12GHz | | | | *Note 1 | C-24/23/50 | 0.003 | 0.002 | |
| PHYSICAL | Water Absorption | | % | IPC TM-650 2.6.2.1 | D-24/23 | 0.06 | 0.06 | |
| | Peel Strength | 1oz (H-VLP) | kN / m | IPC TM-650 2.4.8 | As Received | 0.8 | 0.8 | |
| | Flammability | | - | UL | C-48/23/50 | 94V-0 | 94V-0 | |

Sample thickness ; 29.5 mil = 0.75 mm

Note 1: The method by H. Kawabata, Proceedings of the 36th European Microwave Conference, 388-391 (2006)

*The data above show actual values and are not guaranteed.

++ Before purchase ++

- * If delivery specifications have been agreed upon, descriptions in the delivery specifications take precedence.
- * Specifications and appearances are subject to change without prior notice for product improvement.
- * For details of the products contained in this catalog, contact your dealer or our sales representative.
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