

# pro-bond 7FB

UL Approval: E214381 Version: 04/03/2025

## VT-770B Black Prepreg & RCF & VT-770B RCF (LCTE) / Prepreg & Resin Coated Film Bondply

VT-770B is a halogen-free, high Tg, ultra low Dk/Df, and ceramic-filled thermoset resin system in black color, specifically designed for use in multilayer PCBs with Ventec tec-speed laminates & prepregs, and it is also fully compatible with other resin systems in hybrid stack-ups.

### General Information

- > Halogen free
- > Suitable for sequential laminations
- > Unreinforced adhesive for better electrical isotropic consistency
- > Excellent flow characteristics and filling ability, designed for fine line and space
- > Laser drillable
- > Excellent laser hole pattern consistency

### Application

- > Interposers
- > Anti-shake Coils
- > Probe Cards
- > Packaging Modules

### Storage Condition

| Properties        |                   | Prepreg             |                    |
|-------------------|-------------------|---------------------|--------------------|
| Storage Condition | Temperature       | Below 23 °C (73 °F) | Below 5 °C (41 °F) |
|                   | Relative humidity | Below 55% RH        | /                  |
| Shelf Life        |                   | 3 months            | 6 months           |

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## Availability

### RCF

| Type          | Availability                                  |
|---------------|-----------------------------------------------|
| Dielectric    | 0.0043" (110 µm) with chopped fiber           |
| Standard Size | 610mmx460mm (24"x18")<br>305mmx228mm (12"x9") |
| PET Film      | 50 µm                                         |

### Prepreg

| Glass Fabric | Press Thickness (µm) |
|--------------|----------------------|
| 2116 RC55%   | 125                  |
| 1080 RC64%   | 75                   |
| 106 RC71%    | 50                   |

## Properties

| Item                |                   | Test Method         | Units  | VT-770B RCF | VT-770B RCF (LCTE) | VT-770B PP |
|---------------------|-------------------|---------------------|--------|-------------|--------------------|------------|
| Tg                  | DMA               | IPC-TM-650 2.4.24.4 | °C     | 260         | 260                | 260        |
| Td                  | TGA               | ASTM D3850          | °C     | 440         | 445                | 450        |
| Thermal Stress      | 288°C 10sec/cycle | IPC-TM-650 2.4.13.1 | cycle  | >30         | >30                | >30        |
| T288                |                   | IPC-TM-650 2.4.24.1 | min    | >30         | >30                | >30        |
| Dk @ 10GHz          | C-24/23/50        | IPC-TM-650 2.5.5.13 | –      | 3.2         | 3.3                | 3.6        |
| Df @ 10GHz          | C-24/23/50        | IPC-TM-650 2.5.5.13 | –      | 0.0033      | 0.0035             | 0.004      |
| Peel strength (1oz) | As Received       | IPC-TM-650 2.4.8    | Lb/in  | 4.0         | 4.0                | 4.0        |
| X/Y-axis CTE        | Before Tg         | IPC-TM-650 2.4.24   | ppm/°C | 14          | 12                 | 9~10       |
| Z-axis CTE          | Before Tg         | IPC-TM-650 2.4.24   | ppm/°C | 15          | 13                 | 25         |
| Water absorption    |                   | IPC-TM-650 2.6.2.1  | %      | 0.1         | 0.1                | 0.1        |
| Flammability        |                   | UL 94               | Rating | V-0         | V-0                | V-0        |

\*VT-770B(S) refers to with chopped fiber.

All test data provided are typical values and not intended to be specification values.

The information and data contained in this technical literature is based on data and knowledge correct at the time of publishing/printing and is believed to be accurate and is offered in good faith for the benefit of the user. The user should make his own tests to verify the suitability of this product for any application before its use. All data are typical values only and subject to change without notice.