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TFE-TFTM Resin

TFE-TFTM is a thermal forming epoxy resin, which is modified to have characteristics as thermal plastics at forming temperature. The composites formed by TFE-TFTM not only remain the same advantages such as mechanical properties and fatigue resistance as thermosetting epoxy, but also have the good ability on impact performance that is similar to thermal plastics. Composite reforming is possible.

■ Description

- ◇ Transparent appearance especially for woven components
- ◇ Solution type resin system
- ◇ Easy to process
- ◇ Designed for hot press moulding

■ Cure cycles:

TFE-TFTM can be cured at the temperature from 150⁰C to 180⁰C depending on the individual requirement of stiffness. Low, medium and high curing pressure may be applied during TFE-TFTM curing process to obtain a proper surface condition and which depends on the thickness of laminates. Recommended curing/forming cycle for thin-walled structures are as below.



1. Lower curing temperature is heating rate $>10^{\circ}\text{C}/\text{min}$ ramp to 150°C ; hold for 20~30 minutes to cure the laminate.
 2. Higher curing temperature is heating rate $>10^{\circ}\text{C}/\text{min}$ ramp to 180°C ; hold for at least 10 minutes to cure the laminate.
 3. Use IR to preheat the cured laminate at the temperature around $210 \sim 230^{\circ}\text{C}$ for at least 1 minute and then apply the pressure for at least 1 minute to form the shape.
- I. The time applying pressure should be adjusted with varied shapes, cross-sections and heating rates.
 - II. The effective pressure should be also adjusted with different requirements of cured products such as fibre/resin fraction, amendment of thickness etc.

■ Handling and storage

Storage temperature: Store at 4°C for 3 months or -15°C for 6 months.

Handling: Wear protective mask/glasses/gloves/clothing. Wash thoroughly after handling.

■ Important

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