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EPO-HFTM TOUT Resin

EPO-HFTM TOUT is designed for fast cure requirement of outer and inner pressure processes. Under the common demand of static mechanical properties for a composite material, these cured matrices impart products excellent mechanical properties and remarkable fatigue resistance. Unidirectional tapes and woven fabrics impregnated with EPO-HFTM TOUT will retain tack for a week at room temperature.

■ Description

- ◇ For controlled flow hot melt/solution type prepregs
- ◇ Fast cure, 20 min at 130⁰C ; 7.5-10 min at 150⁰C ; 5 min at 160⁰C
- ◇ Moderate tack resin system
- ◇ Designed for SW/bladder moulding application
- ◇ Available for carbon or glass tapes or fabrics
- ◇ Controlled minimum viscosity for easier/stable processing

■ Curing conditions

EPO-HFTM TOUT can be cured at the temperature from 125⁰C to 160⁰C depending on the individual requirement. Low, medium and high curing pressure may be applied



during EPO-HFTM TOUT curing process to obtain a proper surface condition and desired resin content. Recommended cure cycle for thin-walled structures are as below.

1. Adjustable curing pressure; $2^{\circ}\text{C}/\text{min}$ ramp to 130°C ; hold for 20 min; cooling to $<80^{\circ}\text{C}$.
2. For higher conversion, curing time can be prolonged to 60 min.
 - ◇ Alternative cure (1): Faster heat-up rate; ramp to 150°C and hold for 10 minutes; cooling to $<80^{\circ}\text{C}$.
 - ◇ Alternative cure (2): Cooperate with rapid cooling & heating system; ramp to 160°C and hold for 5 minutes; cooling rapidly to $<80^{\circ}\text{C}$.
 - ◇ Heat-up rate for thicker wall structure would be recommended not to be more than $5^{\circ}\text{C}/\text{min}$.
 - ◇ A dwell time would be recommended to avoid the resin exotherm usually between 80°C - 100°C . The dwell time is dependent on the mass and the type of tool.
- I. The time applying pressure should be adjusted with varied shapes and cross-sections.
- 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:

■ Resin system:

Shelf life: -15°C for 6 months.

■ Prepreg:

Out life: 4 weeks at 21°C

Shelf life: 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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