



LTC250-2XL

Epoxy Component Prepreg

Introduction

LTC250-2XL Prepreg is designed to cure at low temperatures whilst giving you increased outlife over other low-cure systems and great flexibility in component manufacture. It is a toughened epoxy resin system that can be supplied on a variety of fabrics to meet your cost and manufacturing requirements.

Typical applications: General purpose – Visual

Key Features & Benefits

- Cure temperature from **50°C to 75°C**
- Service temperature up to **125°C** after post cure
- Low CTE and shrinkage
- Work life at 20°C: **5 days**
- Storage life at -18°C: **12 months**
- Very low VOC content – no added solvents during manufacture

Storage & Out Life

This material should be kept frozen at -18°C. It must be kept sealed in a polythene bag which must not be opened until fully thawed to room temperature. If the material is not fully used, then the material must be resealed in the polythene bag to prevent moisture absorption.



Cure Cycles & performances

- Recommended Initial cure: **60°C for 14h**, at a ramp rate of **1.0°C/min**
- Recommended Post cure: **120°C for 1h**, at a ramp rate of **1.0°C/min**

CURE CYCLE OPTIONS:

Temperature	Duration	Tg
50°C (minimum)	40 hours	55°C
60°C	14 hours	65°C
65°C	8 hours	70°C
75°C (maximum)	4 hours	80°C
120°C Post cure	1 hours	130°C

- Curing Schedule is meant to be a guide only and is subject to local conditions.
- To avoid exotherm particular care must be taken with thick laminates.
Ramp rates must not exceed **3.0°C** per minute during **initial cure**.
Ramp rates must not exceed **0.3°C** per minute during **post cure** (free standing).

Volatile content	< 1.0%
Fibre volume fraction	50 to 60%
Voidage (autoclave cure)	< 1.0%

Cured Material Properties

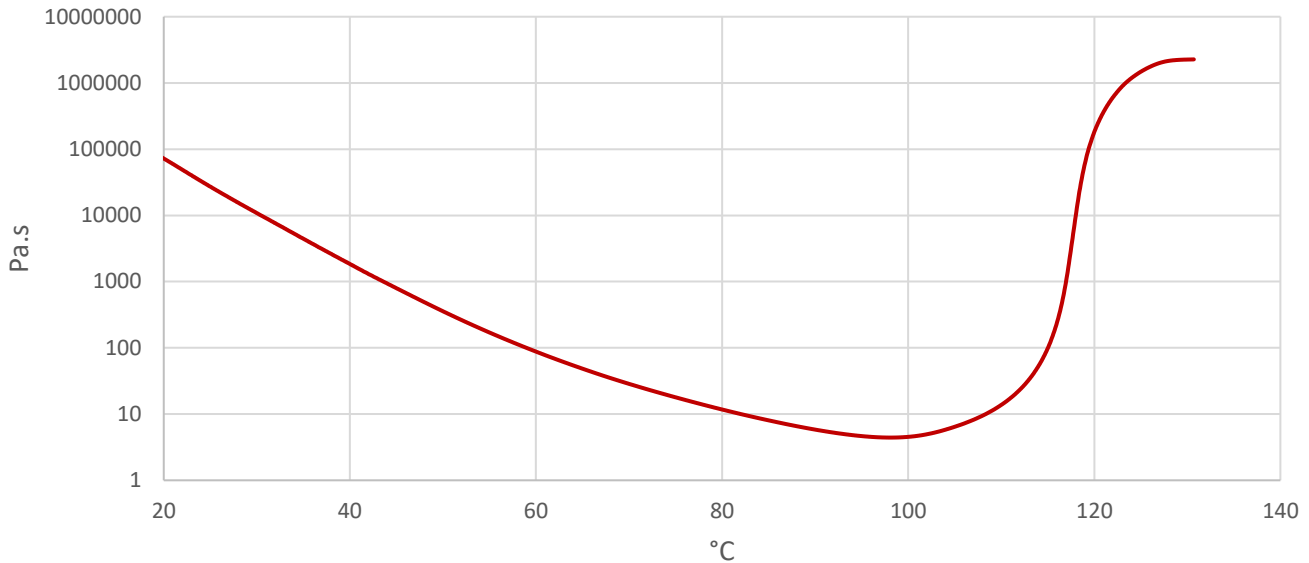
Test	Results	Standard	
DMA	Tg – Storage Modulus Onset	130 °C	ASTM D7028
	Tg – Tan δ Peak	144 °C	

Data obtained after a 120°C, 1h post cure.



Viscosity Profile

Testing carried out at $23\pm 2^{\circ}\text{C}$, $50\pm 5\%$ RH. Ramp rate: $2^{\circ}\text{C}/\text{min}$.



Health and Safety

This material contains epoxy resin which can cause allergic reactions with skin contact and must avoid repeated and prolonged skin contact.

Please refer to the product Safety Data Sheet before using this material. The following precautions must be taken when using epoxy resin prepregs:

- Overalls must be worn.
- Impervious gloves must be worn.
- Curing schedule is meant to be as a guide only and is subject to local conditions.
- To avoid exotherm, particular care must be taken with thick laminates.
- Ramp rates must not exceed $3.0^{\circ}\text{C}/\text{min}$ during initial cure and $0.3^{\circ}\text{C}/\text{min}$ during post cure.

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