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# MTFA400

## Epoxy Resin Film

### Introduction

MTFA400 resin film is designed to give enhanced toughness and higher service temperature, giving great flexibility in component manufacture. It is a toughened epoxy resin system that can be supplied with or without fabric support to meet your cost and manufacturing requirements.

***Typical applications: Resin film***

### Key Features & Benefits

- Cure temperature from **80°C to 150°C**
- Service temperature up to **180°C** after post cure
- Low CTE and shrinkage
- Work life at 20°C: **28 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.

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Note: The information and assistance provided herein is for your consideration without legal responsibility. Users are required to perform verification and testing to confirm that the product meets with their requirements.



## Cure Cycles & performances

- Recommended cure cycle for 150°C service temperature: **150°C for 1h**, at a ramp rate of **2.0°C/min**

### Alternative cures

Cure	Initial Min Cure	Tg
80°C (minimum)	16 hours	90°C
100°C	4 hours	110°C
120°C	2 hours	130°C
150°C (maximum)	1 hour	160°C
180°C Post Cure	2 hours	190°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. It is recommended that small scale trials are carried out before larger cures carried out.***

Ramp rates must not exceed **2.0°C** per minute during **initial cure**.

Ramp rates must not exceed **0.3°C** per minute during **post cure** (free standing).

## 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 preregs:

- 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°C/min during initial cure and 0.3°C/min during post cure.

SHD Composite Materials Ltd cannot accept any liability for injury or damage where the above precautions have not been taken or where the material is used for any purpose other than its intended use.

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