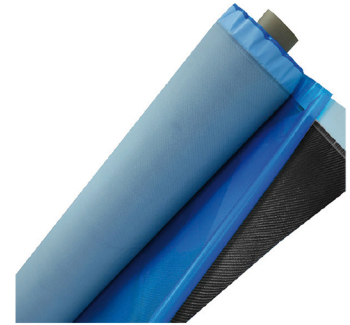


MULTIPREG™ 420

Carbon fabric prepreg 420g/m²



Description

Variable temperature cure epoxy prepreg

- Highly transparent resin system with superior UV resistance
- The resin system complies with the applicable requirements as given in the Rules and Regulations of Germanischer Lloyd
- Very high chemical resistance
- Pinhole-free and high gloss surfaces with Out of Autoclave (OoA) manufacturing
- Easy processing in vacuum bagging processes (disposable as well as reusable systems)
- Curing temperatures from 80 up to 120 °C are possible, depending from the processing and curing methods

Application

Automotive, marine, sports equipment, orthopaedics and prosthetics.

Storage

At -18 °C: 1 year

At +20 °C: 6-8 weeks

Characteristics

Twill weave 2/2

Areal weight (dry): 420 g/m²

Width: 100 cm

Resin type: Epoxy

Resin content: 42 %

Areal weight prepreg: 535 g/m²

Prepreg thickness unprocessed: approx. 0.43 mm

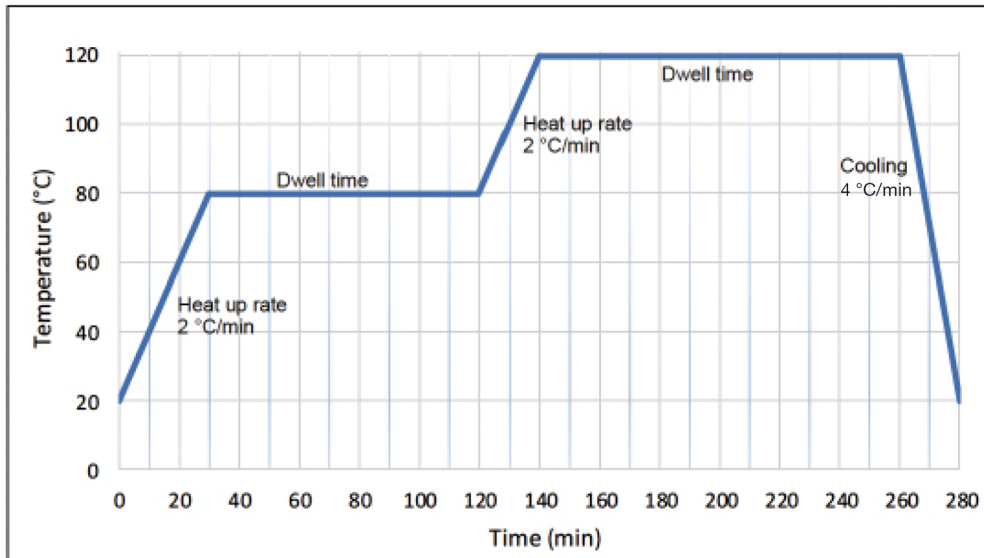
Prepreg thickness compressed in laminate (fibre content 60 % by vol.): approx. 0.19 - 0.21 mm

Rolls from 0.25 up to 50 m, width 100 cm

Properties of the neat resin formulation

	Cure after B-Stage	T _g
Glass transition temperature T _g (°C) (IEC 1006, DSC, 10 K/min)	4h at 90 °C	80 °C
	6h at 100 °C	110 °C
	2h at 120 °C	110 °C
Flexural test (ISO 178) Curing: 2h at 120 °C, tested at 23 °C	Flexural strength	125-135 MPa
	Ultimate elongation	7-10 %
	Flexural modulus	2900-3100 MPa

Cure schedule



Important Note:

Recommended schedule is based on curing of 6 layers of prepreg in the vacuum bagging process. According to processing conditions and demanded T_g, dwell time and heat up rates can be altered.

Thawing prepreg before use

MULTIPREG™ prepregs must be stored in a freezer, to ensure the longest possible shelf-life. When the prepregs are removed from the freezer, it is essential that the roll be allowed to thaw and reach room temperature before the packaging is opened. The typical thaw time for a roll taken from -18 °C (0 °F) to 21 °C (70 °F) is between 4 and 6 hours. Condensation may form on the surface of the material if it is not fully thawed. Moisture within a curing laminate may be detrimental to final part quality and appearance. When prepregs are returned to the freezer they must be resealed to prevent ingress of moisture.

We deliver MULTIPREG™ prepregs without cooling, so that they can be cut to size and be processed immediately upon receipt. We recommend, provided it is possible to do, that a set of cuts is made and that those cuts that could not be processed within a week, are put back in the freezer again.

Health and safety

- Avoid skin contact - wear disposable rubber gloves and use skin barrier creams.
- Avoid eye contact. If this occurs, flush with clean, running water for 10 to 15 minutes. A doctor should then be consulted.
- Ensure good ventilation of vacuum pump exhaust during laminate cure.
- Avoid inhalation and eye contact with sanding dust. After any sanding operation of reasonable size a shower or bath should be taken and should include hair washing.
- Wear overalls or other protective clothing. Thoroughly clean or discard soiled garments.
- Use only resin removing creams/soap and water on exposed skin. Do not use solvents.
- **Washing should be part of routine practice:**
 - before eating or drinking
 - before smoking
 - before using the lavatory
 - after finishing work
- **In all cases of doubt call for medical assistance.**