NEMpreg.sport6540

SNAP CURE EPOXY RESIN PREPREG

DESCRIPTION

NEMpreg.sport6540 is an advanced prepreg based on epoxy resin system. Suitable for the sport and hobby applications. Recommended for autoclave or hot press molding techniques.

TYPICAL USE

Sport and hobby elements:
bike frames, sticks, helmets

SPORT & HOBBY

FEATURES

- snap cure prepreg (10 min. at 120^{0}C)
- out life up to 14 days at 20^{0}C
- high surface quality
- medium tack (can be tailored)
- high drapeability

DEDICATED TECHNOLOGY	autoclave, hot press molding
OUT LIFE (20^{0}C)	14 days
SHELF LIFE (-18^{0}C)	12 months
Tg	120^{0}C
REINFORCEMENT	glass, carbon from 25gsm to 900gsm

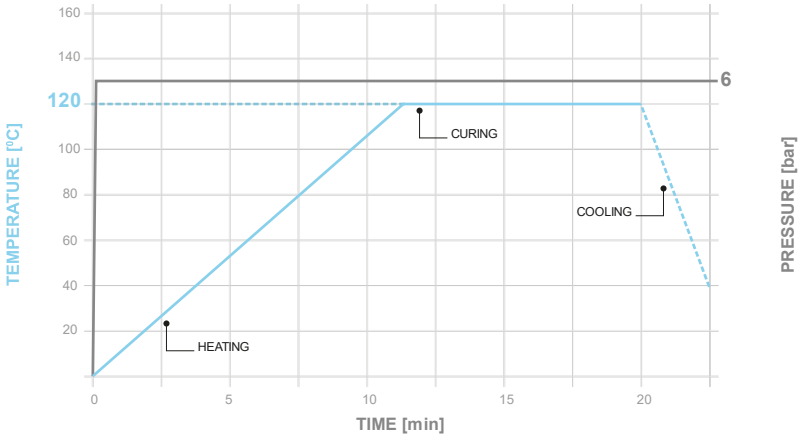
NEAT RESIN PROPERTIES

Resin system cured at 120^{0}C for 10 min.

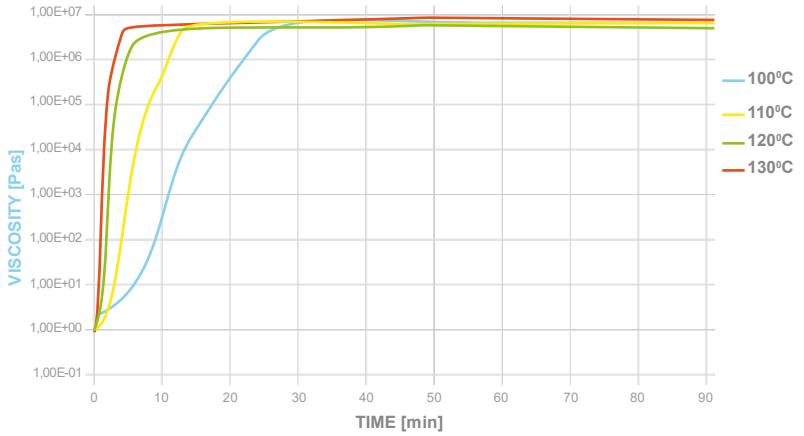
PROPERTY	UNIT	VALUE	TEST STANDARD
Tensile strength	MPa	60	ISO 527-4
Tensile modulus	GPa	3.4	ISO 527-4
Flexural strength	MPa	140	ISO 178
Flexural modulus	GPa	3.7	ISO 178
Tg (DMA)	^{0}C	120	ISO 6721-1

RECOMMENDED CURING CYCLE

1. Apply 4-10 bar of pressure (6 bar is recommended)
2. Heat at 5-20^{0}C/min up to 120^{0}C
3. Hold at 120^{0}C for 10 minutes
4. Cool down to 60^{0}C or below

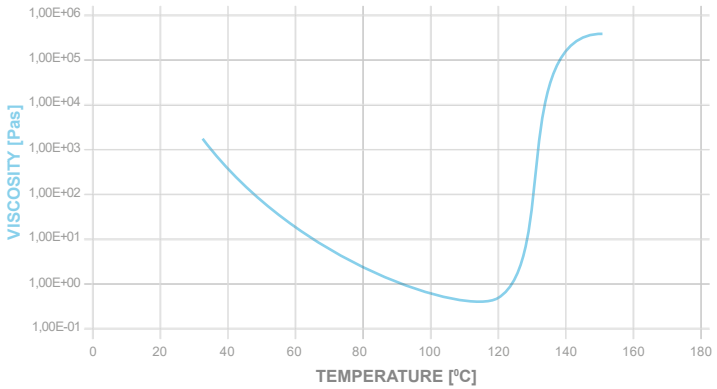


ISOTHERMAL CURING



DYNAMIC CURING

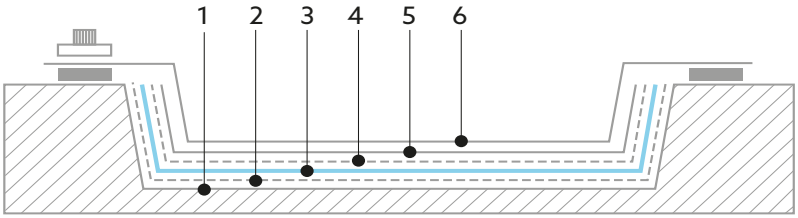
Resin viscosity profile conducted at 10^{0}C/min.



LAY-UP PROCEDURE

FOR AUTOCLAVE

1. The mold surface must be covered with the release agent.
2. To prepare the surface for the bonding process, a layer of peel ply can be used for the lay-up (nylon peel ply is recommended).
3. Apply the MEMpregs.
4. The lay-up must be covered with release foil.
5. Put bleeders and feed strips of glass or peel ply on the top.
6. Finally, place a vacuum bag and seal it with butyl tape. Apply the vacuum to remove trapped air. Debulk the laminate for at least 15 to 30 minutes (depending on the thickness).



MECHANICAL PROPERTIES

Laminates cured using hot press molding technique according to the cycle presented above.

PROPERTY	UNIT	DESCRIPTION	TEST STANDARD
Fiber type	N/A	carbon	N/A
Area weight	g/m^2	200	N/A
Weave	N/A	twill 2/2	N/A
Resin content	%	40	N/A
Tensile strength	MPa	740	ISO 527-4
Tensile modulus	GPa	74	ISO 527-4
Flexural strength	MPa	900	ISO 14125
Flexural modulus	GPa	50	ISO 14125
Tg (DMA)	^0C	120	ISO 6721-1

STORAGE CONDITIONS

Keep the NEMpreg in the original bag at operating temperature before unpacking. NEMpreg can be stored for 14 days at 20^0C, or 12 months at -18^0C. After removal from refrigerator storage, prepreg should be allowed to reach room temperature before opening to prevent water condensation. When not in use, NEMpreg must be covered by protective foil to prevent the inner structure from humidity. If the moisture level is too high, it can result in superficial and internal defects in the finished product.

ATTENTION

The above information concerning our products is based on our present-day knowledge, research results and experiences and are presented in good faith in accordance with the company's practices. The proposed procedures are considered to be commonly applied. However, any user should verify, if the delivered material is suitable for the intended application. This should take place according to current industrial standards and norms, including examinations of the final product. Neither the company nor its representatives shall be liable for any direct, indirect, punitive, incidental, special consequential damages, to property or life, whatsoever arising out of or connected with the use or misuse of the company's products.

New Era Materials sp. z o.o. | Komandosów 1/7, 32-085 Modlniczka, Polska (Poland) | T: +48 122 010 210 | E: info@neweramaterials.com
www.neweramaterials.com | NIP (Tax-ID): PL8522600335 | REGON: 321307000 | BDO: 000038992 | KRS: 0000440957
Sąd Rejonowy dla Krakowa Śródmieścia w Krakowie | XII Wydział Gospodarczy KRS | Kapitał zakładowy (Share capital) 25 667 600,00 PLN