

Newport 1101-331

Description:

Newport 1101-331 is a 235°F to 275°F cure, modified epoxy prepreg designed for one-step assembly of fiberglass and Kevlar® faced sandwich panels for applications requiring high strength at temperatures from -67°F to 200°F

Application:

Newport 1101-331 is suited for structural and secondary bonding applications in aerospace, sporting goods, radomes, marine, wind energy, and industrial manufacturing where good adhesion strength and toughness is required.

Newport 1101-331 can be supplied with most commercially available fibers in woven form (designated as NB 1101-331), including;

- Carbon
- E-glass
- Aramid
- S-Glass
- Quartz

Benefits/Features:

- Co-curable with most 250°F curing prepreps
- 7 day out-time at 70°F
- Meets NASA outgassing requirements.
- Self-adhesive prepreg,
- Co-curable adhesives available (NB101, NB102)
- High sandwich panel bond strength

Recommended Processing Conditions:

Newport 1101-331 can be cured at temperatures from 235°F to 275°F, depending on service temperature requirements. Low, medium, and high pressure molding techniques may be used to cure Newport 1101-331. Recommended cure cycle is 25psi, 3°F/min ramp to 250°F, hold for 60 minutes, cool to <140°F.

Physical Properties*:

Gel Time (275°F):	3- 6 min.
Specific Gravity:	1.20 ± 0.02
Tg (DMA,E')	240°F (115°C)

* Values are average and do not constitute a specification

Mechanical Properties:

The mechanical properties data supplied in the following table are average values obtained with NB-1101-331 on 7781 E-glass fabric (40% RC). The test panels were cured at 275°F for 60 minutes using 25 psi.

Typical Mechanical Data* NB1101-331 7781 40% Resin Content:**

NB1101-331 7781 40% RC	Typical Data	Test Method
Compression Strength (Ksi)	65	ASTM D695
Compression Modulus (Msi)	3.5	ASTM D695
Tensile Strength (Ksi)	63	ASTM D3039
Tensile Modulus (Msi)	3.4	ASTM D3039
Flexural Strength (Ksi)	87	ASTM D790
Flex Modulus (Msi)	3.2	ASTM D790
Short Beam Shear (Ksi)	7.5	ASTM D2344

*(normalized to 60% fiber volume)

** Values are average and do not constitute a specification

Prepreg Storage:

Material can be stored at 40°F for 3 months, or 0°F for 6 months.
Out time is 7 days maximum at room temperature (70°F)

Availability:

Newport 1101-331 is available in a variety of woven fabrics, including aramid, E-glass, S-glass, carbon and other fibers. Resin content can be adjusted within reason to meet individual needs. Contact Newport about any specialty fibers or requirements.

Standard woven prepreg fabric widths:

E-glass; 38, 50 inch

Carbon: 42, 50 inch

Kevlar® 38, 50 inch

For orders, pricing, availability, technical assistance or other inquiries please contact:

CORPORATE OFFICES

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(Kevlar ® is a trademark of the DuPont Company)

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