
Newport 106

Description:

Newport 106 is a 235°F to 300°F cure, flame retardant epoxy film adhesive designed for bonding metallic and non-metallic substrates to end grain wood, foam, and honeycomb core materials.

Application:

Newport 106 is suited for structural and secondary bonding applications in aerospace, sporting goods, marine, wind energy, and industrial manufacturing where flame retardant properties are required.

Newport 106 is supplied in standard film weights from 0.030 to 0.090 psf (150-450 gsm), and a variety of commercially available reinforcements, including:

- Non-woven polyester mat (HC)
- Nylon mesh (N), and tricot (TR)
- Metal meshes for electrical management
- Unsupported
- Available in prepreg form (NB1106)

Benefits/Features:

- Flame retardant
- Co-curable with most 250°F curing prepreps
- Conforms to FAR 25.853 burn tests
- Meets NASA out-gassing requirements
- 7 day out-time at 70°F

Recommended Processing Conditions:

Newport 106 can be cured at temperatures from 235°F to 300°F, depending on service temperature requirements. Low, medium, and high pressure molding techniques may be used to cure Newport 106. 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):	3-5 min.
Specific Gravity:	1.30 ± 0.02
Tg (DMA,E')	210°F

Mechanical Properties:

The mechanical properties data supplied in the following table are average values obtained with NB-106 at 0.060 lbs/ft². All metal to metal tests were conducted in accordance with Federal Specification MMM-A-132. Sandwich tests were performed in accordance with Military Specification MIL-A-25463. The test panels were cured at 275°F for 30 minutes using 25 psi.

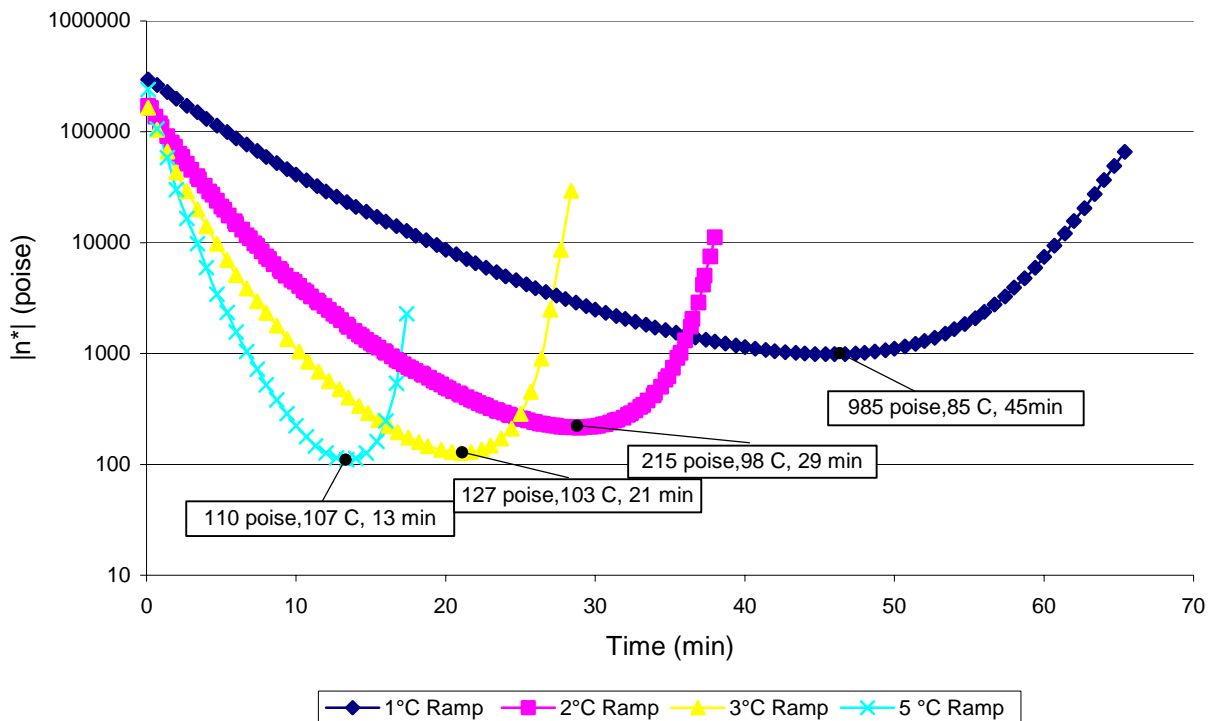
	-67°F *	RT *	180°F*
Tensile shear strength, psi	3800	4000	3100
Sandwich peel str., In-lbs/in	-	10-17	-
Flatwise tensile strength, psi	1200	1350	975
Flexural strength, lbs	2800	2900	2400

* Values are average and do not constitute a specification

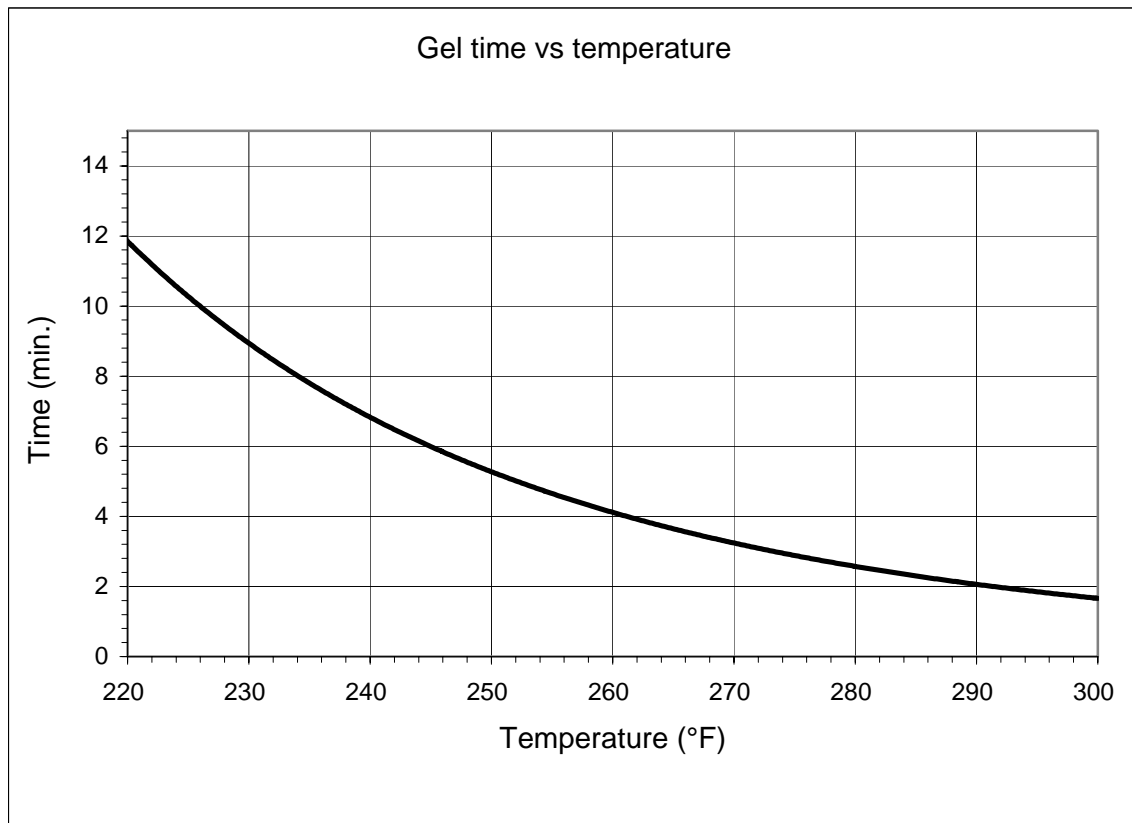
Melt Viscosity Profile of Newport 106

A TA (model AR2000) parallel plate rheometer was used to determine the melt viscosity of the neat resin system.

Newport 106 Viscosity vs Time



Gel Curve Profile of Newport 106



Prepreg Storage:

Material can be stored at 40°F for 3 months, or 0°F for 6 months.

Availability:

Newport 106 is available in film weights from 0.030 to 0.090 psf (150-450 gsm) either unsupported or supported with a carrier. Contact Newport about any special requirements.

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

CORPORATE OFFICES

Newport Adhesives and Composites

1822 Reynolds Ave,

Irvine, CA 92614

Tel: (949) 253-5680

Fax: (949) 253-5692

Sales@newportad.com

<http://www.newportad.com>

Disclaimer: The information contained herein has been obtained under controlled laboratory conditions and are typical or average values and do not constitute a specification, guarantee, or warranty. Results may vary under different processing conditions or in combination with other materials. The data is believed to be reliable but all suggestions or recommendations for use are made without guarantee. You should thoroughly and independently evaluate materials for your planned application and determine suitability under your own processing conditions before commercialization. Furthermore, no suggestion for use or material supplied shall be considered a recommendation or inducement to violate any law or infringe any patent.