
TB3500

Description:

TB3500 is a 225°F to 325°F cure, high performance epoxy film adhesive designed for bonding metallic and honeycomb core materials.

Application:

TB3500 is suited for structural and secondary bonding applications in aerospace, sporting goods, marine, wind energy, and industrial manufacturing where exceptional bond strengths are required.

TB3500 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)
Unsupported

Benefits/Features:

- Co-curable with most 250°F curing prepregs
- Exceptional metal-to-metal and honeycomb bonds
- Controlled flow
- 14 day out-time at 70°F

Recommended Processing Conditions:

TB3500 can be cured at temperatures from 225°F to 300°F, depending on service temperature requirements. Low, medium, and high pressure molding techniques may be used to cure Newport 3500. Recommended cure cycle is 35 psi, 3°F/min ramp to 275°F, hold for 60 minutes, cool to <140°F.

Physical Properties*:

Gel Time (275°F):	3-5 min.
Specific Gravity:	1.20 ± 0.02
Tg (DMA,E')	250°F

Mechanical Properties:

The mechanical properties data supplied on the following table are average values obtained with TB3500HC at 0.060 lbs/ft². The test panels were cured at 275°F for 60 minutes using 35 psi.

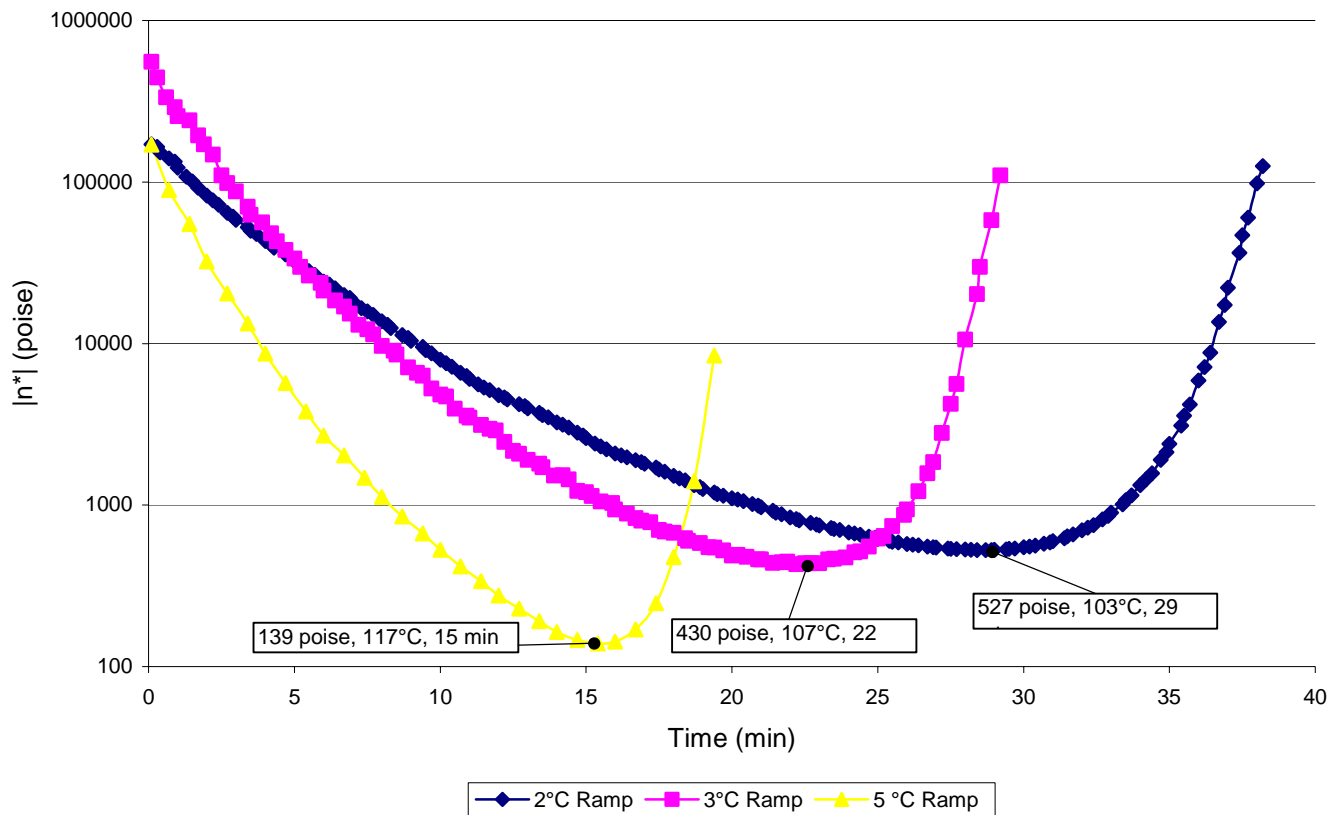
	Test method	-67°F *	RT *	180°F*
Tensile shear strength, psi	ASTM D 1002	5100	5000	3000
T peel strength, lbs/in	ASTM D 1876	-	35	-
Floating roller peel str., lbs/in	ASTM D 3167	50	68	75
Honeycomb CD peel str in-lbs/in	ASTM D 1781	20	22	20

* Values are average and do not constitute a specification

Melt Viscosity Profile of TB3500

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

TB3500 Rheology vs. Time



Prepreg Storage:

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

Availability:

Newport 3500 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:

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