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**Newport 308T****Description:**

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Newport 308T is a general purpose, 250°F to 300°F curing, epoxy resin system designed for industrial applications. Newport 308T produces a water clear, highly transparent epoxy resin. It is ideal for uses where the aesthetic appearance of the composite part is important.

**Application:**

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Since it is a transparent epoxy resin, Newport 308T is suited for all applications where aesthetic appearance is important. Versatile processing and excellent mechanical properties make Newport 308T ideal for all general applications.

Newport 308T can be supplied with most commercially available fibers in both woven form (designated as NB) as well as unidirectional tape (designated as NCT), including:

- Carbon
- Quartz
- Aramid
- S-glass
- E-glass
- Other specialty fibers and fabrics

Woven fabrics are available in standard commercial widths up to 60 inches. Unitape widths up to 39 inches (1M) are available in standard fiber weights ranging from 90 to 300 gsm.

**Benefits/Features:**

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- Highly transparent, water clear resin when cured.
  - Ideal for aesthetic applications.
  - Vacuum bag, press, and autoclave curable.
  - Excellent mechanical properties.
  - Available on a wide range of unidirectional fibers and fabrics.
  - Long out time at 77°F.

**Recommended Processing Conditions:**

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Newport 308T can be cured at temperatures from 250°F to 300°F, depending on service temperature requirements. Low, medium, and high pressure molding techniques may be used to cure Newport 308T. Recommended cure cycle is 15psi, 3°F/min ramp to 275°F, hold for 60 minutes, cool to <140°F.

**Physical Properties:**

Gel Time (275°F):	3-6 min.
Flow	35%
Dry Tg (DMA, Cured @ 275°F, 90 min)	122.5°C

**Mechanical Properties:****120 E-Glass reinforcement**

The mechanical property data supplied in the following table are average values obtained from NB-308T with 120 Glass at 50%RC. All values are based using an autoclave cure (see cure cycle chart below) and are as tested.

Property	Test Method	RT*
0° Tensile strength, ksi	ASTMD-638 Type I	46
0° Tensile modulus, Msi		2.7
0° Flexural strength, ksi	ASTMD-790	82
0° Flexural modulus, Msi		3.4
0° Short Beam Shear str, ksi	ASTMD-2344	7.4

\* Values are average and do not constitute a specification

**3K 2X2 Twill Carbon reinforcement**

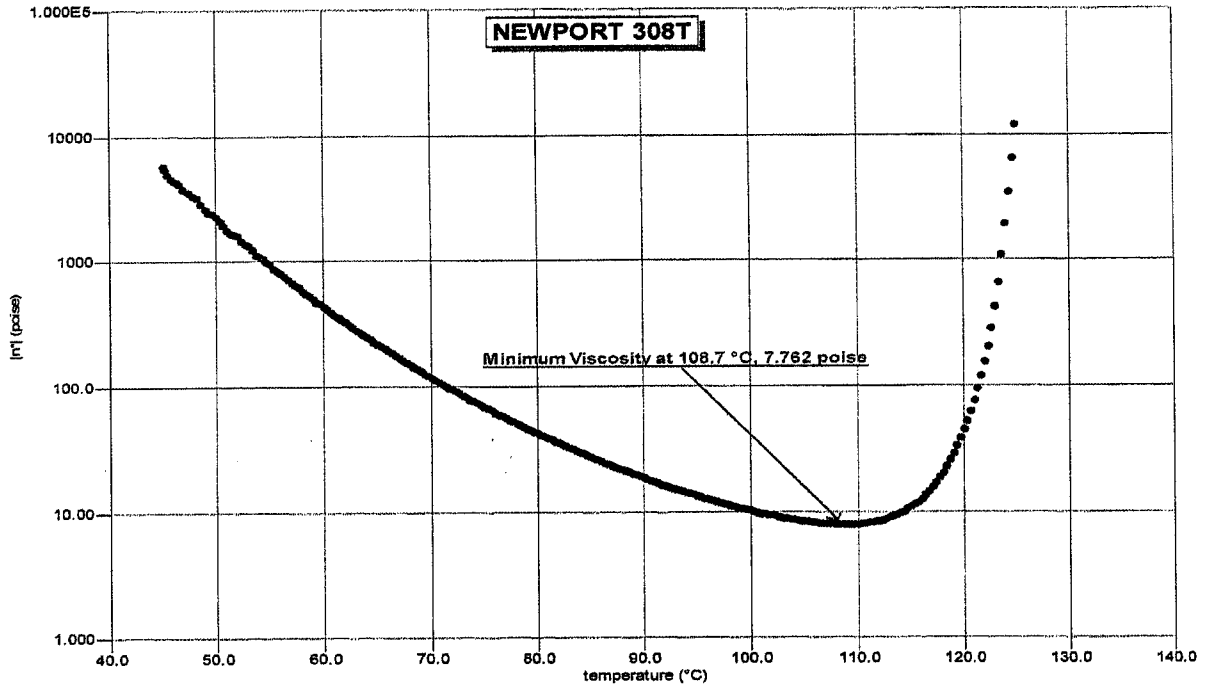
The mechanical property data supplied in the following table are average values obtained from NB-308T with 3K 2x2 twill at 53%RC.

Property	Test Method	RT*	160°F*
0° Tensile strength (ksi)	ASTM D-3039	90.4	94.4
0° Tensile modulus (Msi)		7.6	7.4
0° Flexural strength (ksi)	ASTM D-790	103.1	92.7
0° Flexural modulus (Msi)		6.0	6.2
0° Compression strength (ksi)	ASTM D-695	71.0	68.0
0° Compression modulus (Msi)		6.6	6.5
0° Short beam shear (ksi)	ASTM D-2344	10.4	8.5

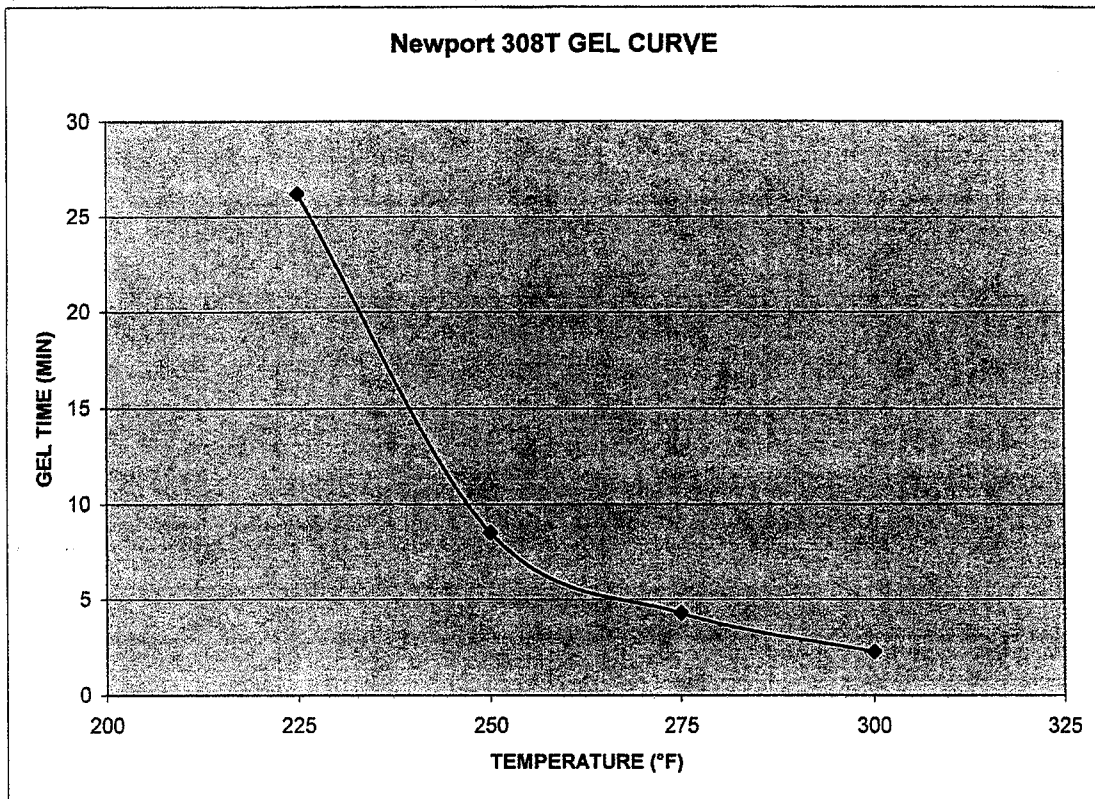
\* Values are average and do not constitute a specification

**Melt Viscosity Profile of Newport 308T**

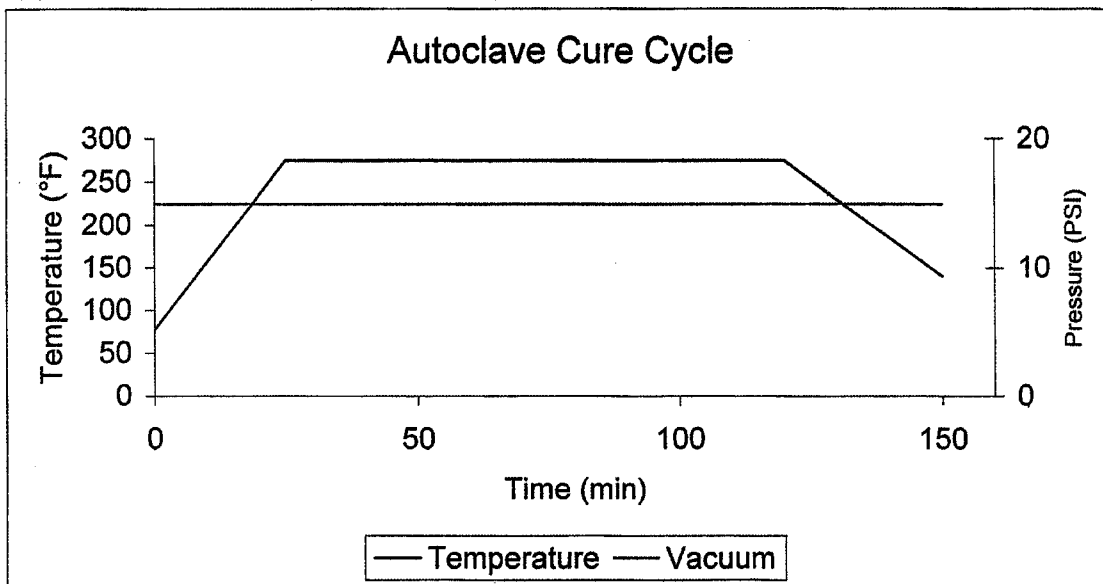
A TA (model AR2000) parallel plate rheometer was used to determine the melt viscosity profile of the neat resin system.



**Gel Curve Profile of Newport 308T**



**Newport 308T Autoclave Cure Chart**



**Prepreg Storage:**

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

**Availability:**

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Newport 308T is available on a wide variety of woven fabrics and unidirectional tapes including aramid, E-glass, S-glass, carbon, and other fibers. Tack, flow and other properties can be tailored to meet your specific requirements. Contact Newport about any specialty fibers or requirements.

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

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