

# 3500



## 250-300°F (121-149°C) Cure High Performance Epoxy Resin System

### Typical applications

Aerospace  
Military

### Shelf life

14 days at 70°F (21°C)  
3 months at 40°F (4°C)  
6 months at 0°F (-18°C)

### Description

3500 is a 250°F to 300°F (121°C to 149°C) cure, high performance epoxy film adhesive designed for bonding metallic and honeycomb core materials.

### Benefits/features

- High peel and shear strength properties
- Exceptional metal-to-metal and honeycomb bonds
- Meets: MMM-A-132, MIL-A-25463
- Co-curable with most 250°F (121°C) curing prepregs
- Controlled flow

### Application

3500 is suited for structural and secondary bonding applications in aerospace and military where exceptional bond strengths are required.

3500 is supplied in standard film weights from 0.030 to 0.090 psf (150-450 gsm), and a variety of commercially available carriers, including:

- Non-woven polyester mat – 0.0035 psf (17 gsm)
- Nylon tricot – 0.0019 and 0.005 psf (9 and 25 gsm, respectively)

### Recommended processing conditions

3500 can be cured at temperatures from 250°F to 300°F (121°C - 149°C) depending on part size and complexity. Low, medium and high pressure molding techniques may be used for curing. Recommended cure cycle is 35 psi (241 kPa); 3°F (1.7°C)/min ramp to 275°F (135°C); hold for 60 minutes, cool to <140°F (60°C).



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Technical Data Sheet



## Neat Resin [values are average and do not constitute a specification]

Property	Value
Gel Time @ 275°F (135°C), minutes	3 – 5
Specific Gravity	1.20
Tg (DMA, E'), °C (°F)	120 (248)

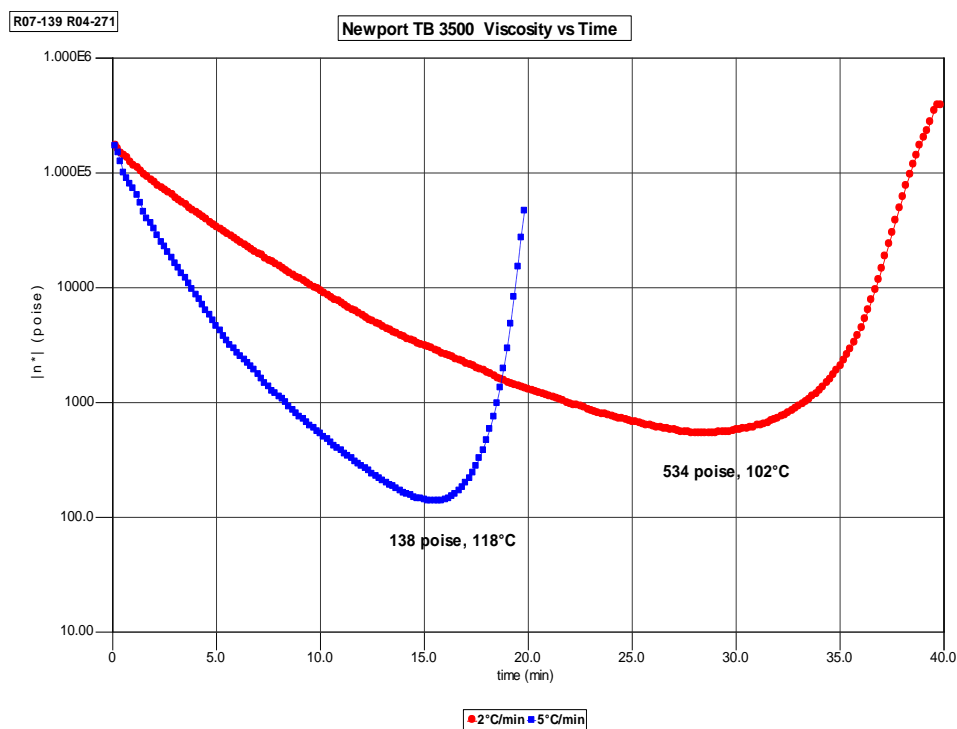
## Mechanical Data [values are average and do not constitute a specification]

3500HC @ 0.060 psf (293 gsm), preheated press 275°F, 60 minutes, 35 psi (241 kPa)

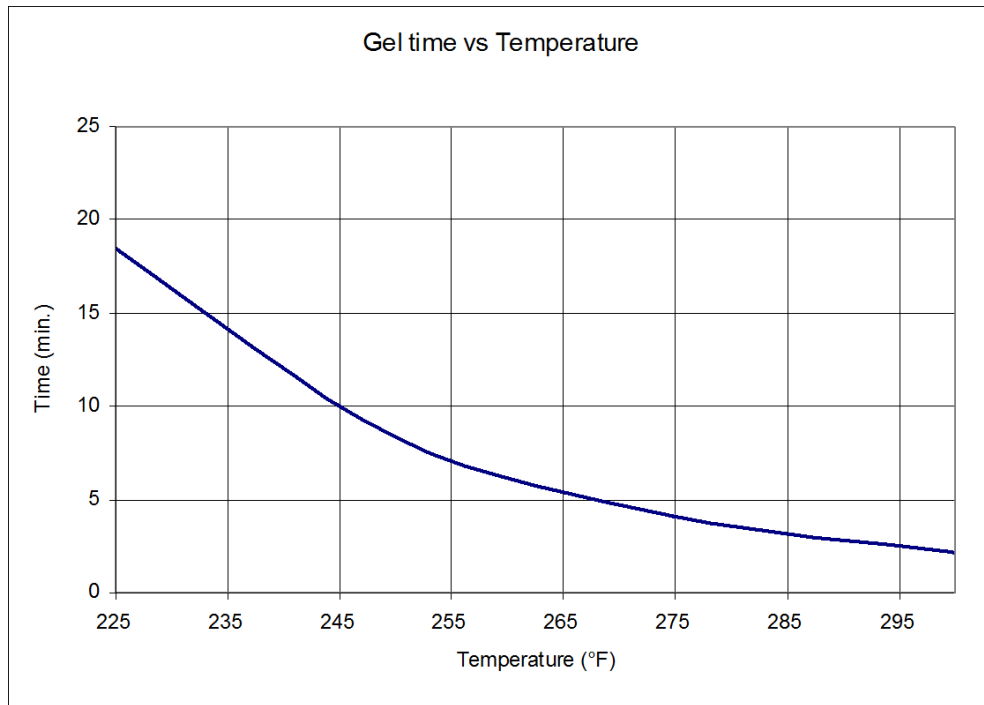
Property	Test method	-67°F (-55°C)	RT	180°F (82°C)
Tensile shear strength, psi (MPa)	ASTM D1002	5100 (35)	5000 (34)	3000 (20)
T peel strength, lbs/in (N/mm)	ASTM D1876	--	35 (6.1)	--
Floating roller peel str., lbs/in (N/mm)	ASTM D3167	50 (8.7)	68 (11)	75 (13)
Honeycomb CD peel str., in-lbs/in (Nm/m)	ASTM D1781	20 (88)	22 (97)	20 (88)

## Viscosity Profile

TA - AR2000 parallel plate rheometer



## Gel Curve



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.

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