

HMT317

250-300°F (121-149°C) Cure Hot-melt Towpreg

Typical applications

Marine
Medical
Industrial
Sporting goods

Out life

21 days at 70°F (21°C)

Shelf life

3 months at 40°F (4°C)
6 months at 0°F (-18°C)

Description

HMT317 is a 250°-300°F (121°-149°C) cure, hot melt towpreg, utilizing a semi-toughened, controlled flow epoxy resin matrix. Versatile processing, excellent mechanical properties, and long out time make HMT317 suitable for a variety of applications.

Benefits/features

- Environmentally friendly (solvent free, no release paper nor cover film)
- Consistent resin content, +/-3%
- Stable band width
- Easy de-spooling
- High tack (adjustable)
- Excellent mechanical properties
- Available on a wide range of standard, intermediate, and high modulus carbon fibers
- Compatible with many of our 250°F (121°C) to 300°F (149°C) cure epoxy systems

Application

Superior quality and general purpose applications make HMT317 well suited for filament winding process and/or fiber placement process in variety of structural applications in sporting goods, marine, medical, and industrial markets.

Recommended processing conditions

HMT317 can be cured at temperatures from 250°-300°F (121°-149°C) depending on part size and complexity. Low, medium, and high pressure molding techniques may be used to cure HMT317 resin. Recommended cure cycle is 50–100 psi (345–690 kPa), 3°F/min (1.7°C/min) ramp to 275°F (135°C), hold for 60-90 minutes, cool to <140°F (60°C).





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

Property	Value
Gel time @ 275°F (135°C), minutes	4 - 6
Specific gravity	1.22
T _g (DMA, E'), °C (°F)	125 (257)

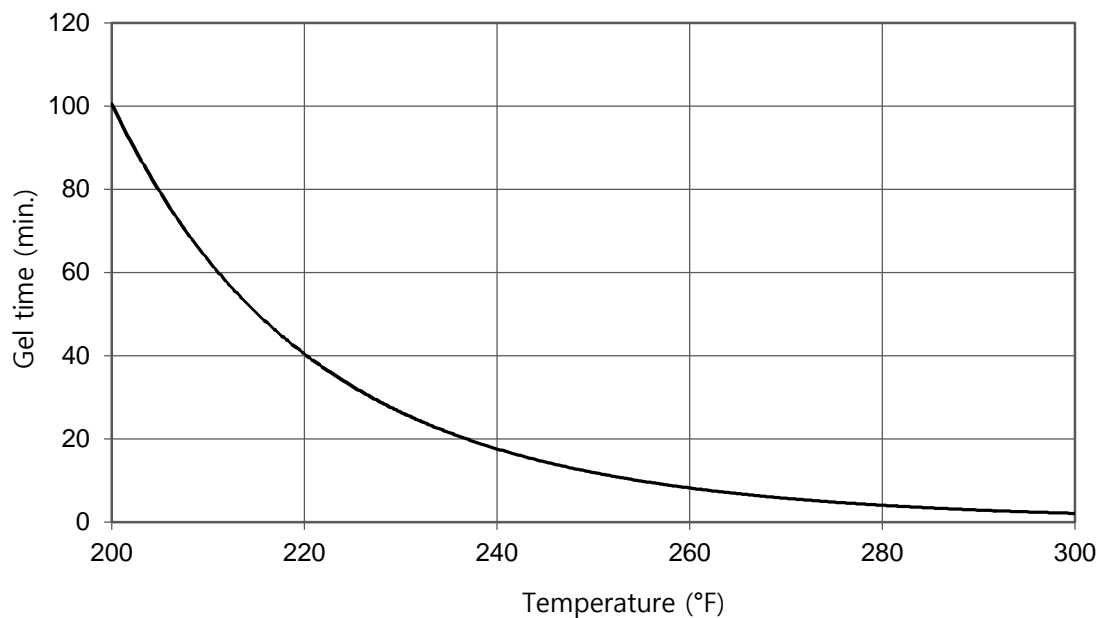
Mechanical data [values are average and do not constitute a specification]

34-700 33% RC, press cured, 25psi, 60 minutes at 275°F, as tested

Property	Test method	RT	200°F
0° Tensile strength, ksi (MPa)	ASTM D3039	300 (2070)	257 (1770)
0° Tensile modulus, Msi (GPa)		16 (110)	--
0° Compressive strength, ksi (MPa)	ASTM D695mod	138 (951)	135 (931)
0° Compressive modulus, Msi (GPa)		--	--
0° Flexural strength, ksi (MPa)	ASTM D790	238 (1640)	160 (1100)
0° Flexural modulus, Msi (GPa)		17.7 (122)	17.1 (118)
0° Short beam shear strength, ksi (MPa)	ASTM D2344	11.0 (75.8)	7.0 (48.3)

Gel curve

Gel time vs. temperature



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.

CORPORATE OFFICE
Composite Materials Div.
1822 Reynolds Ave.
Irvine, CA 92614

Tel: (949) 253-5680
Fax: (949) 253-5692
<http://www.mrcfac.com>
compositesales@mrcfac.com

THE KAITEKI COMPANY
Mitsubishi Chemical Holdings Group