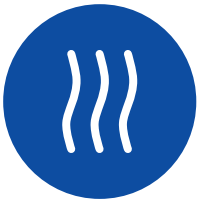




Toray Composite Materials America, Inc.

G-94M PREPREG SYSTEM

G-94M is our standard 250°F to 300°F cure system. It can be used for multiple purposes but is found primarily in recreational and sporting goods applications. It provides excellent mechanical properties, controlled flow, great handling, and a high T_g .



High Heat Tolerance

High T_g allows for high temperature part demolding reducing cycle time. Material works well with high temperature paint curing cycles.



Easy Layup

Product allows complex part layup with minimal cuts or ridge lines. It maintains a comparable class A finish through post-cure, minimizing sanding and finishing times.



Readily Available

Product is in stock and ready to ship.



Flexible Cure Methods

Cutting methods include autoclave, oven cure, or press molding. Product can be cured with or without using a dwell.

Availability:

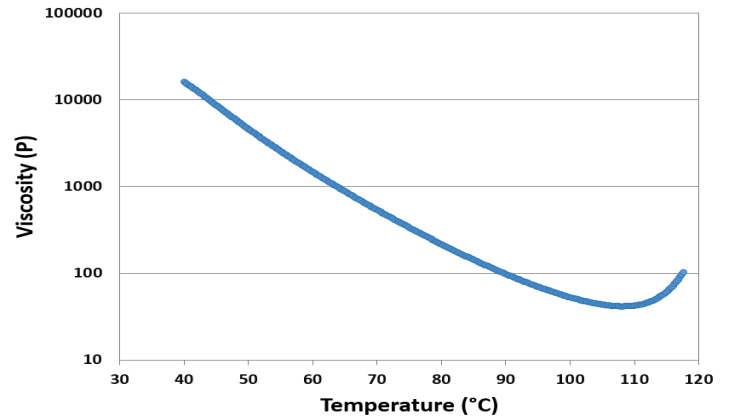
G-94M resin is available with numerous types of unidirectional carbon fibers and woven and glass fabrics with Fiber Areal Weight (FAW) ranging from 50 g/m² to 300 g/m² and Resin Content, (RC%) by weight percent, ranging from 24% to 44%.



NEAT RESIN PHYSICAL PROPERTIES

PROPERTY	METHOD	UNITS	VALUE
Density	ASTM D595	g/cm ³	1.206
Tg (Dry)	DMA	°F (°C)	270 (132)
Gel Time	ASTM D3532	minutes	3.6
Linear CTE	TMA	(μm/(m*°C))	73.9

RESIN VISCOSITY CURVE



NEAT RESIN MECHANICAL PROPERTIES

PROPERTY	SYMBOL	METHOD	UNITS	VALUE
Compressive Strength	F _C	ASTM D695	Ksi (Mpa)	17.2 (119)
Compressive Modulus	E _C	ASTM D695	Ksi (Mpa)	455 (3140)
Flexural Modulus	E _F	ASTM D790	Ksi (Mpa)	494 (3410)
Flexural Strength	F _f	ASTM D790	Ksi (Mpa)	21.4 (148)
Fracture Toughness	K _{IC}	ASTM D5045-99	Psi*√in (MPa*√m)	.90 (.99)

For more information or purchasing inquiries:
sales@toraycma.com | www.toraycma.com | 253-846-1777

TYPICAL LAMINATE PROPERTIES WITH T700S-12K at 150 g/m² FAW and 35% RC

PROPERTY	SYMBOL	METHOD	UNITS	VALUE
0° Tensile Strength*	F _{1t}	ASTM D3039	Ksi (MPa)	407 (2810)
90° Tensile Strength	F _{2t}	ASTM D3039	Ksi (MPa)	7.7 (53)
0° Tensile Modulus*	E _{1t}	ASTM D3039	Msi (GPa)	19.4 (134)
±45° In Plane Shear Strength	F ₁₂	ASTM D3518	Ksi (MPa)	19.1 (132)
Inter-laminar Shear Strength	ILSS	ASTM D2344	Ksi (MPa)	11.0 (75.8)

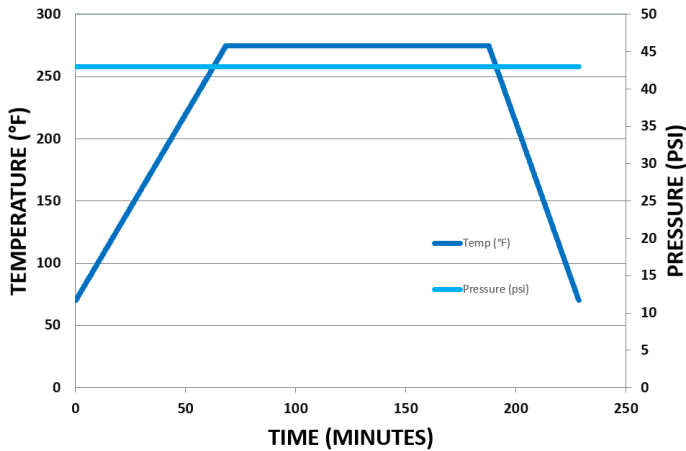
*normalized to 60% Vf

TYPICAL LAMINATE PROPERTIES WITH T800S-12K at 120 g/m² FAW and 34% RC

PROPERTY	SYMBOL	METHOD	UNITS	VALUE
0° Tensile Strength*	F _{1t}	ASTM D3039	Ksi (MPa)	472 (3260)
90° Tensile Strength	F _{2t}	ASTM D3039	Ksi (MPa)	8.6 (59)
0° Tensile Modulus*	E _{1t}	ASTM D3039	Msi (GPa)	23.7 (163)
±45° In Plane Shear Strength	F ₁₂	ASTM D3518	Ksi (MPa)	20.0 (138)
Inter-laminar Shear Strength	ILSS	ASTM D2344	Ksi (MPa)	12.2 (84.1)

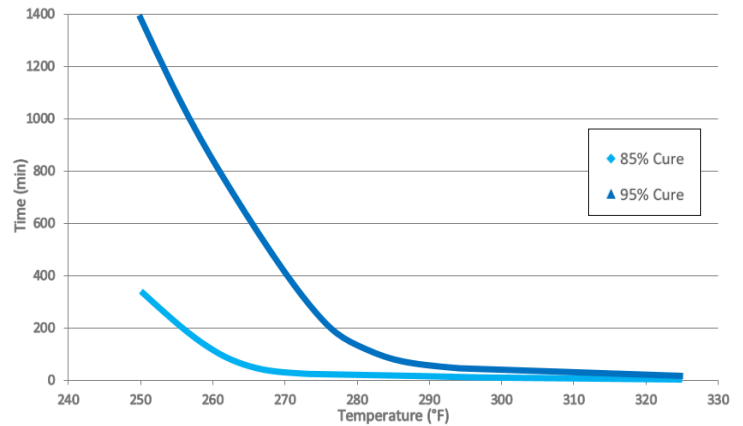
*normalized to 60% Vf

RECOMMENDED CURE CYCLE (275°F)



Cure Temperature: 275°F
 Cure Time: 120 min
 Ramp Rate: 3°F/min
 Cure Pressure: 43 psi
 Cool Down Rate: 5°F/min

TIME TO 85% & 95% CURE BY CURE TEMPERATURE



STORAGE LIFE

Fridge Life:	3 months @ <40°F
Freezer Life:	24 months @ <10°F

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