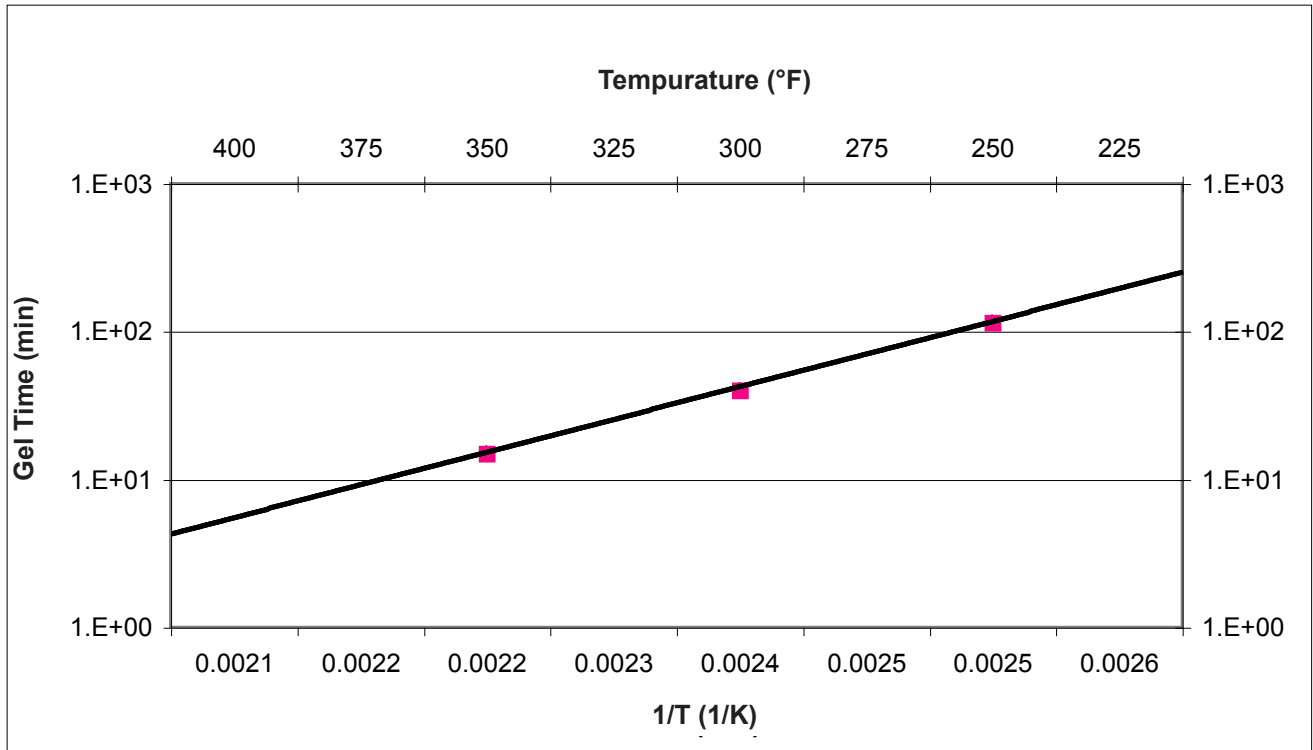


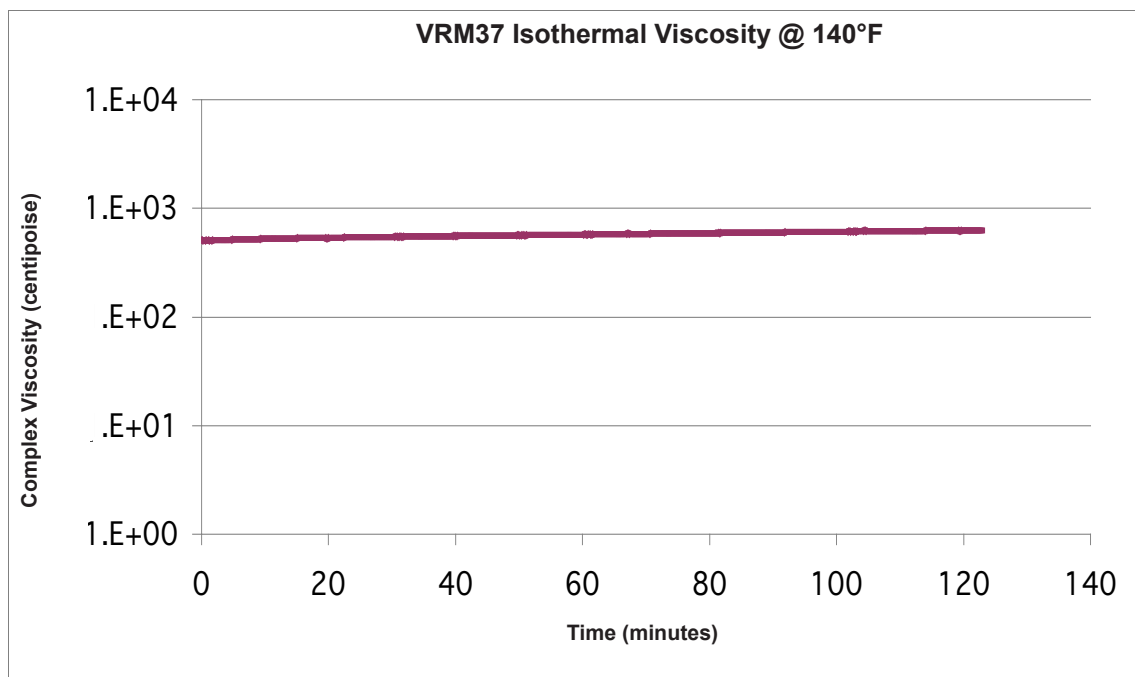
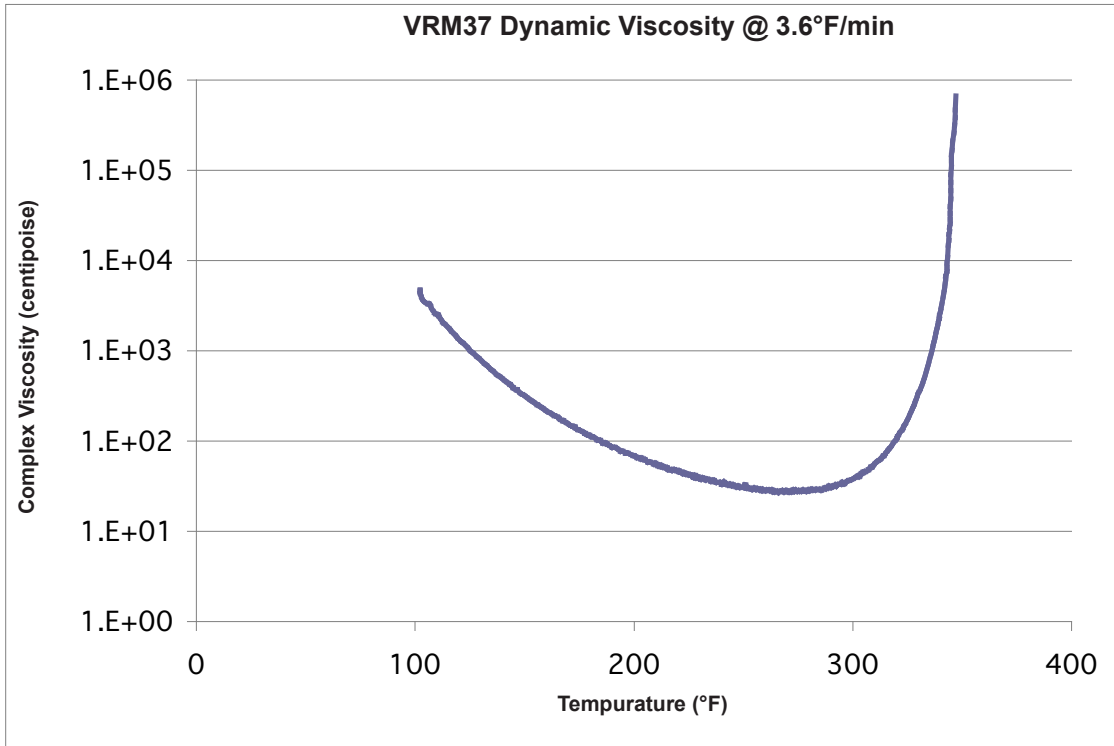
HexFlow® VRM37 *Product Data*

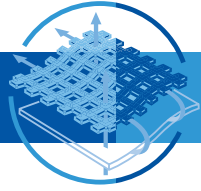
Matrix Gel Times



Viscosity Profiles

Dynamic and Isothermal Viscosity Curve





HexFlow® VRM37 Product Data

Neat Resin Properties

VRM37 Cured @ 350°F		
Property	Test Condition (Method)	Average
Cured Density (g/cc)	RTA	1.15
Moisture Uptake - 2 weeks @ 160°F (%)	RTA	2.75
MEK Uptake - 2 weeks @ RTA (%)	RTA	0.95
Glass Transition Temperature, T_g (°F)	Dry (DMA)	375
	Wet - 2 week soak @ 160°F (DMA)	320
Flexural Strength (ksi)	RTA (ASTM D790, Method 1)	18.5
Flexural Modulus (ksi)	RTA (ASTM D790, Method 1)	540
K_{IC} (psi·in ^{1/2})	RTA (ASTM D5045)	650

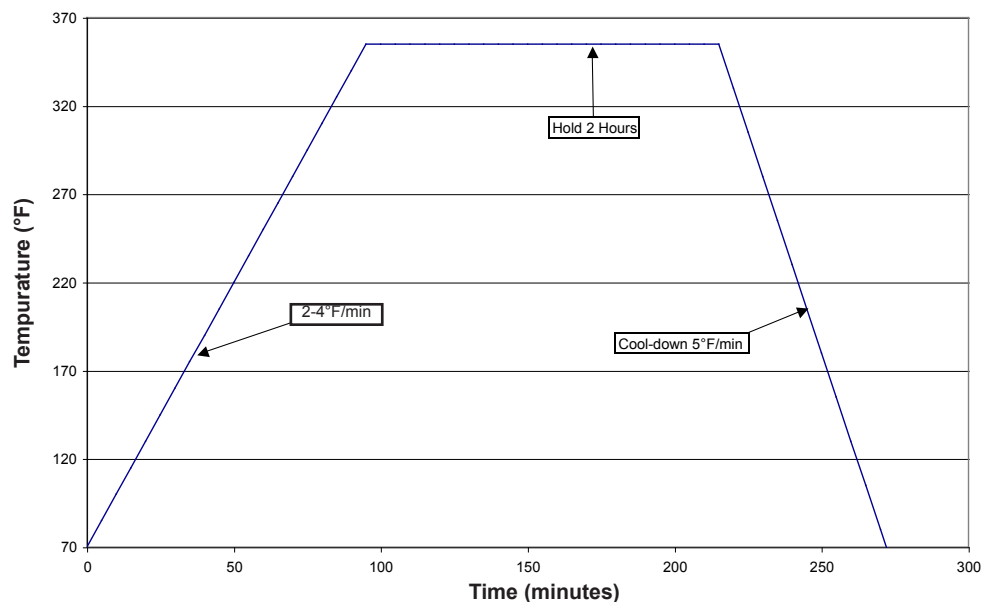
Recommended Processing

- Mix ratio by weight 100A:60B
- Degas 20-45 min at 130°F-140°F
- Pot temperature 130°F-140°F (3 hour max for up to 10 lbs of resin)
- Mold temperature 180°F-210°F (1 hour max for part thickness up to 0.5")

Recommended Cure Cycle

- Ramp 2-4°F/min to 350°F, hold 2 hours
- Cool 5°F/min

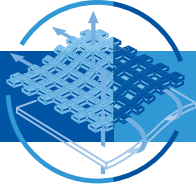
VRM37 Recommended Cure Cycle



350°F Curing, Two-Part, Mid-Toughened Epoxy Resin

Composite Laminate Mechanical Properties

VRM 37 / AS4C PW - Cured @ 350°F			
Date normalized, except*	Wet conditioning: 2 weeks @ 160°F		
Property	Test Condition	Average	COV (%)
Unnotched Compression Strength (ksi)	RTA	93.34	2.0
	180°F Dry	83.32	3.8
	180°F Wet	69.60	8.9
Unnotched Compression Modulus (msi)	RTA	7.517	3.5
	180°F Dry	7.296	1.9
	180°F Wet	7.467	2.5
Open Hole Compression Strength (ksi)	RTA	37.63	5.9
	180°F Dry	33.40	5.1
	180°F Wet	30.88	3.1
Short Beam Shear (ksi)	RTA	10.197	4.6
	180°F Dry	8.480	2.4
	180°F Wet	7.187	2.2
Fracture Toughness,*G _{I,c} (in-lb/in ²)	RTA	2.292	16.7
Compression After Impact - 270 in-lb, (ksi)	RTA	33.57	4.7
Flexural Strength (ksi)	RTA	139.67	4.0
Flexural Modulus (msi)		8.584	11.1



HexFlow® VRM37 *Product Data*

Important

Hexcel Corporation believes, in good faith, that the technical data and other information provided herein is materially accurate as of the date this document is prepared. Hexcel reserves the right to modify such information at any time. The performance values in this data sheet are considered representative but do not and should not constitute specification minima. The only obligations of Hexcel, including warranties, if any, will be set forth in a contract signed by Hexcel or in Hexcel's then current standard Terms and Conditions of Sale as set forth on the back of Hexcel's Order Acknowledgement.

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- Continuous Fiber Reinforced Thermoplastics
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- Structural Film Adhesives
- Honeycomb Sandwich Panels
- Special Process Honeycombs
- Reinforced Fabrics

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