

# UF3360 TCR™ RESIN

## TECHNICAL DATA SHEET



### UF3360 Resin Summary

- Unique, solvent-free epoxy resin
- **6-month shelf life** without refrigeration
- Resin content, flow during cure, and tack levels tailored to suit your process needs
- **Available reinforcement materials:** carbon, glass, aramid, and other fibers
- **Available fiber forms:** tow/roving, unitape, braid, and fabric
- **Typical Use:** Commercial products when moderately high temperatures and good hot/wet properties are required.

### Neat Resin Properties

Properties	177°C for 1 hour	Test Method
Density	1.20 g/cc	ASTM D792
Tensile Strength	69.0 MPa / 10.0 Ksi	ASTM D638
Tensile Modulus	3.17 GPa / 460 Ksi	ASTM D638
Elongation at Break	3.5%	ASTM D638
Tg – from E" DMA curve	166°C / 331°F	ASTM E1640
Tg after 24-Hr Water-Boil– E" DMA	114°C / 237°F	ASTM E1640
Water Absorption	3.3%	

### Composite Properties\*\*

Properties	Metric	English	Test Method
0° Tensile Strength	1,820 MPa	265 Ksi	ASTM D3039
0° Tensile Modulus	148 GPa	22 Msi	ASTM D3039
0° Tensile Strain	1.2%		ASTM D3039
0° Compressive Strength	1,490 MPa	216 Ksi	SACMA SRM 1R-94
90° Tensile Strength	23 MPa	3.3 Ksi	ASTM D3039
Short Beam Strength	58 MPa	8.5 Ksi	ASTM D2344
Flexural Strength	2,027 MPa	294 Ksi	ASTM D0790

\*\*T700 type fiber. Normalized to 60% Fiber Volume. Cured at 177°C for 1 hour.

Presented values are expected ranges based on actual test data. Since values are dependent on specimen preparation and test method, TCR Composites cannot guarantee that these properties will be obtained in all cases. Data should be used only as an indication, since part or component properties are highly dependent on user process and design. It is recommended that end users determine the suitability of this material for each application through their own testing and evaluation. TCR™ is a trademark of TCR Composites, Inc.

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### Cure Profiles\*

Options	Ramp Up	Hold Temperature	Hold Time (Hours)	Ramp Down
1	≤ 2.5°C/min (5°F/min)	177°C / 350°F	1	≤ 2.5 °C/min (5°F/min) to 66°C (150°F) or less
2		166°C / 330°F	2	
3		154°C / 310°F	3	

\*Higher temperatures and shorter hold times may also work, but have not yet been tested.

### Storage Requirements

The pre-impregnated materials manufactured from this resin shall remain sealed and stored in the original package. The material is to be stored indoors, out of the weather.

Maximum Storage Temperature	Shelf Life (Months)	Additional Life at Ambient Temperatures After Refrigeration (Months)
24°C / 75°F	6	-
32°C / 90°F	3	-
-18°C / 0°F	24	3 (at Temps ≤ 24°C / 75°F)

For additional technical information regarding TCR Composites' products, please visit our website for a list of technical service contacts.

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