

UF3330 TCR™ RESIN

TECHNICAL DATA SHEET



UF3330 Resin Summary

- Unique, solvent-free, epoxy resin
- **1-year shelf life** without refrigeration
- Resin content tailored to suit your process needs
- **Available reinforcement materials:** carbon, glass, aramid, and other fibers
- **Available fiber forms:** tow/roving, fabric, and braid
- **Typical use:** Sporting goods, commercial products, and a variety of other products. This resin is suitable when an extra-long shelf life is desired, and high-temperature capabilities are not required.

Neat Resin Properties

Cure Temperature and Hold Time	154°C for 1 hours	Test Method
Density	1.19 g/cc	ASTM D792
Tensile Strength	60 MPa / 8.7 Ksi	ASTM D638
Tensile Modulus	2.3 GPa / 328 Ksi	ASTM D638
Elongation at Break	3.4%	ASTM D638
Tg – from E" DMA curve	120°C / 248°F	ASTM E1640
Tg after 24-Hr Water-Boil	70°C / 160°F	ASTM E1640
Water Absorption	4.4%	

Composite Properties**

	Metric	English	Test Method
0° Tensile Strength	2,300 MPa	340 Ksi	ASTM D3039
0° Tensile Modulus	185 GPa	27.0 Msi	ASTM D3039
0° Tensile Strain	1.3%		ASTM D3039
0° Compressive Strength	1,650 MPa	240 Ksi	SACMA SRM 1R-94
90° Tensile Strength	14.0 MPa	2.0 Ksi	ASTM D3039
Short Beam Strength	58 MPa	8.4 Ksi	ASTM D2344
Flexural Strength	2,100 MPa	310 Ksi	ASTM D0790

**T700 type fiber. Normalized to 60% Fiber Volume.

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

	Ramp Up	Hold Temperature	Hold Time (Hours)	Ramp Down
1	≤ 2.5°C/min (5°F/min)	132°C / 270°F	4	≤ 2.5 °C/min (5°F/min) to 66°C (150°F) or less
2		143°C / 290°F	2	
3		154°C / 310°F	1	

Storage Requirements

The preimpregnated 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	12	-
32°C / 90°F	6	-
-18°C / 0°F	30	6 (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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