

UF3325 TCR™ RESIN

TECHNICAL DATA SHEET



UF3325 Resin Summary

- Unique, solvent-free, Epoxy resin
 - **1-year 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:** Sporting goods, commercial products, pressure vessels, rocket motor cases, and a variety of other products.
- UF3325 resin is suitable when an extra-long shelf life is desired, and high-temperature capabilities are not required.

Neat Resin Properties

Properties	132°C for 4 hours	Test Method
Density	1.21 g/cc	ASTM D792
Tensile Strength	79 MPa / 11.5 Ksi	ASTM D638
Tensile Modulus	2.8 GPa / 410 Ksi	ASTM D638
Elongation at Break	4.5%	ASTM D638
Tg – from E" DMA curve	124°C / 255°F	ASTM E1640
Tg after 24-Hr Water-Boil– E" DMA	76°C / 169°F	ASTM E1640
Water Absorption	3.9%	

Composite Properties**

Properties	Metric	English	Test Method
0° Tensile Strength	2,100 MPa	305 Ksi	ASTM D3039
0° Tensile Modulus	170 GPa	25 Msi	ASTM D3039
0° Tensile Strain	1.7%		ASTM D3039
0° Compressive Strength	1,450MPa	210 Ksi	SACMA SRM 1R-94
0° Compressive Modulus	000 GPa	000 Msi	SACMA SRM 1R-94
90° Tensile Strength	31 MPa	4.5 Ksi	ASTM D3039
Short Beam Strength	63 MPa	9.1 Ksi	ASTM D2344
Flexural Strength	2,020 MPa	293 Ksi	ASTM D0790

**T700 type fiber. Normalized to 60% Fiber Volume. Cured at 132°C for 4 hours.

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)	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	

*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	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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