

TCR Composites offers a unique, modified epoxy resin that features high strength and is flame retardant. TR8600 is a single sided thermosetting coating that can be supplied on carbon, glass and Kevlar fabrics.

Mechanical Properties

The following information contains the standard mechanical properties from prior tests for 7781 glass fabric, with a resin content of 40% ± 2% resin content by weight.

	Laminating Pressure	
	35 psi (+)	100 psi Vacuum
Compressive Strength (ksi) @ 77°F	59	54
@ 160 °F	52	48
Compressive Modulus (ksi) @ 77°F	3.9	3.8
@ 160 °F	3.5	3.4
Flexural Strength (ksi) @ 77°F	85	78
Flexural Modulus (ksi) @ 77°F	3.3	3.2
Tensile Strength (ksi) @ 77°F	60	55
@ 160 °F	58	54
Tensile Modulus (ksi) @ 77°F	3.9	3.8
@ 160 °F	3.5	3.4
Interlaminar Shear (ksi) @ 77°F	5.3	5.1

Product Advantages

- Elimination of the need for separate adhesive during fabrication of sandwich components.
- Excellent handling and draping qualities for both laminating and sandwich applications.
- Low temperature cure prevents degradation of plastic tooling.
- Excellent resistance to acids, anti-icing fluid, alkalis, hydrocarbon fluids, high humidity, Sydnol and water.

Cure

Ramp up to 250°F at a rate of 2 - 10°F per minute. Hold for 1 hour. Ramp down to 150°F (66°C) at < 5°F per minute before removing from heat source.

Suggested cure pressures are as follows:

- Laminate – Vacuum bag to 100 psi autoclave
- Honeycomb Sandwich – 10 to 40 psi positive pressure, (press, autoclave)

Storage Requirements

The preimpregnated materials manufactured from this resin shall remain sealed and stored in the original package.

The shelf life is 6 months from the date of manufacture when the maximum storage temperature shall not exceed 40°F (4°C).

The values here represent expected ranges based on actual test data. Since the values are specimen-preparation- and test-method-dependent, TCR Composites cannot guarantee that these properties will be obtained in all cases. The data should be used as an indication only, since part or component properties are highly equipment- and process-dependent. 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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