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The Aviation Point

Vinyl ester resin — thermoset resin

Vinyl ester handles and cures like polyester, but the FAA handbook says its corrosion resistance and mechanical properties are much improved over standard polyester composites.

Designation

Item	Value
Designation	Vinyl ester resin
Class	Composites
Type	thermoset resin

Vinyl ester facts

Item	What the source says	Source
Handling and cure	Appearance, handling properties and curing characteristics the same as conventional polyester	FAA-H-8083-31B, p. 7-6
Against polyester	Corrosion resistance and mechanical properties much improved	FAA-H-8083-31B, p. 7-6
Fiber compatibility	T700S sizing F0E (0.6%): vinyl ester, compatible with epoxy; sizing 50C also suits vinyl ester	Toray T700S data sheet
Fiber compatibility	T800S sizing 50C: epoxy, phenolic, polyester, vinyl ester	Toray T800S data sheet

No strength or temperature numbers are given by the FAA handbook, so none are shown.

Notes

- **No data table.** Resin maker's sheet governs.

SOURCES · FAA-H-8083-31B, AMT Handbook — Airframe, Volume 1, Chapter 7 · Toray Composite Materials America, TORAYCA T700S Standard Modulus Carbon Fiber Data Sheet · Toray Composite Materials America, TORAYCA T800S Intermediate Modulus Carbon Fiber Data Sheet

SCAN · OPEN THIS DATA SHEET
theaviationpoint.com/parts/materials/vinyl-ester-resin/

Reference data. The aircraft manufacturer's documentation (SRM / IPC) takes precedence.