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Phenolic resin — thermoset resin

Phenolic resins are chosen for aircraft interior components because of their low smoke and flammability characteristics.

Designation

Item	Value
Designation	Phenolic resin
Class	Composites
Type	thermoset resin

Phenolic resin facts

Item	What the source says	Source
Use	Interior components, for low smoke and flammability characteristics	FAA-H-8083-31B, p. 7-6
History	Phenol-formaldehyde resins first produced commercially in the early 1900s; urea- and melamine-formaldehyde appeared in the 1920–30s as cheaper, lower-temperature alternatives	FAA-H-8083-31B, p. 7-6
As foam core	Very good fire resistance, can have very low density, relatively low mechanical strength	FAA-H-8083-31B, p. 7-11
Fiber compatibility	T700S and T800S sizing 50C suits phenolic	Toray data sheets

The FAA handbook gives no strength or temperature figures for phenolic resin, so none are shown.

Notes

- **Interior use only in these sources.**
- **No data table.**

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/phenolic-resin/

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