THE AVIATION POINT · THEAVIATIONPOINT.COM · THE AVIATION POINT · THEAVIATIONPOINT.COM

Epoxy resin — laminating and prepreg resin

Epoxy is the main aircraft composite resin: high strength and modulus, low volatiles, excellent adhesion and low shrinkage.

Designation

Item	Value
Designation	Epoxy resin
Class	Composites
Type	laminating and prepreg resin

Neat resin: Hexcel HexPly 8552

Property	English	Metric (converted)
Density	0.0470 lb/in³	1.30 g/cm³
Glass transition, dry	392 °F	200 °C
Glass transition, wet	309 °F	154 °C
Tensile strength	17.5 ksi	121 MPa
Tensile modulus	0.677 Msi	4.67 GPa
Tensile strain	1.7%	1.7%
Gel time at 350 °F	13 min	13 min
Service temperature	up to 250 °F	up to 121 °C

Hexcel HexPly 8552 sheet (2020), "amine cured, toughened epoxy". Wet and dry Tg are measured per the sheet; the gap between them is the moisture effect the FAA describes.

Notes

- **One resin's numbers.** 8552 is a 350 °F prepreg system; a room-temperature wet layup epoxy is a different resin.
- **No ratio here.** Mix ratios come from the resin data sheet and are by weight.

SOURCES · Hexcel HexPly 8552 Product Data Sheet · FAA-H-8083-31B, AMT Handbook — Airframe, Volume 1, Chapter 7 · AC 43.13-1B, Change 1, Chapter 3, Fiberglass and Plastics

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

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