



EP255 Epoxy Prepreg

EP255 is a modified epoxy that is cured in the 235 to 275° F temperature range. It is self-adhesive to aramid and aluminum honeycomb. EP255 exhibits very good strength properties and can be used for a wide variety of structural applications. This modified epoxy prepreg is self-extinguishing, and passes the 60 Second Vertical Ignition Test listed in FAR 25.853.

Mechanical Properties of EP255-7781

Flexural Strength, psi	94,000
Flexural Modulus, psi	3,300,000
Tensile Strength, psi	63,000
Tensile Modulus, psi	3,650,000
Compressive Strength, psi	60,000
Compressive Modulus, psi	3,900,000
Short Beam Shear Strength, psi	8,600
Climbing Drum Peel, in-lbs/3 inch width	18 to 24

Dielectric Properties of EP255/7781

Dielectric Constant at 7.7 GHZ	4.53
Loss Tangent at 7.7 GHZ	0.013

Flammability Properties of EP255-7781

60 Second Vertical Ignition, 2 ply per side, 4 pcf aramid honeycomb, 1/8" cell	Time to Extinguish side, 1.4 seconds Burned Length – 2.1 inch
FAR Part 25, Amendment 25-853, Appendix F, Part I, Paragraphs (b)(1) through (4)	Drip Time To Extinguish 0 seconds with no drips

Properties of EP255-3K Carbon Plain Weave 5.7 oz/yd² Fabric

Flexural Strength, psi	114,000
Flexural Modulus, psi	9,100,000
Tensile Strength, psi	107,000
Tensile Modulus, psi	8,800,000

NOTE: The data presented herein has been developed under controlled manufacturing and test conditions and is considered accurate. No warranty is expressed or implied regarding the accuracy or use of this data or the use of this product. It is the responsibility of the end user to determine suitability for use.



Process Information – EP255 Prepreg

Autoclave Cycle

Draw full vacuum and apply 45-70 psi autoclave pressure
Increase temperature at 5° F/minute to 240 - 250° F (part temperature)
Hold for 60 to 90 minutes
Cool to less than 150° F at 3 to 5° F/minute
Release pressure/vacuum and demold

Vacuum Bag in Oven Cycle

Draw full vacuum
Increase temperature at 5° F/minute ramp to 175° F (optional)
Hold for 30 to 45 minutes (optional)
Increase temperature at 5° F/minute ramp to 240° F - 250° F
Cure for 60 to 90 minutes
Cool to less than 150° F at 3 to 5° F/minute
Release vacuum and demold

Press Cycle

45 to 60 minutes at 240° F to 255° F, 45 to 70 psi

Recommended Storage

- Room Temperature (77° F)	Four (4) Weeks
- 40° F	Six (6) Months
- 0° F	Twelve (12) Months

NOTE: EP255 Prepreg is wound with a polyethylene film liner for easy release. The rolls are sealed in polyethylene film bags to protect prepreg from moisture and other contaminants. The bags should remain sealed while the prepreg is under refrigeration and only removed when the prepreg has had sufficient time to warm to room temperature. When not in use, the prepreg should be returned to refrigerated storage. Care should be exercised to limit out-time of the prepreg in order to insure maximum shelf life. Torn bags should be replaced.