



**EP255N  
Epoxy Prepreg**

EP255N is a variant of the EP255 system with increased mechanical performance over EP255. EP255N is a modified epoxy that is cured in the 235 to 275° F temperature range. It is self-adhesive to aramid and aluminum honeycomb. EP255N exhibits excellent strength properties and can be used for a wide variety of structural and aerospace applications. EP255N meets the requirements of MIL-R-9300B, type 1. EP255N has excellent resistance to ethylene glycol, hydrocarbon fluids and oils, Skydrol® and water.

**Properties of EP255N 7781 Glass Fabric**

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 Constant at 9.375GHz	4.38
Loss Tangent at 9.375 GHz	0.0125
Dielectric Constant at 18 GHz	4.36
Loss Tangent at 18 GHz	0.0125

## Properties of EP255N 3K 5.7 oz Plain Weave Fabric

Tensile Strength, psi	110,000
Tensile Modulus, psi	9,700,000
Flexural Strength, psi	114,000
Compressive Strength, psi	76,000

## Process Information

### Autoclave Cycle

Draw vacuum and apply 45-70 psi autoclave pressure  
Increase temperature at 5° F/minute ramp to 175° F (optional)  
Hold for 30 to 45 minutes (optional)  
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 de-mold

### Vacuum Bag in Oven Cycle

Draw 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 de-mold

### Press Cycle

45 to 60 minutes at 240° F to 250° F, 45 to 70 psi

## Shelf Life Information

Room Temperature (77°F)	4 weeks
40°F	6 months
0°F	12 months

**NOTE:** EP255N 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. The data presented herein has been developed under controlled manufacturing and test conditions and is considered

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