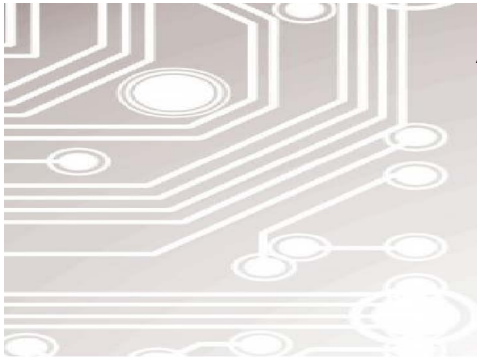


## Multifunctional Epoxy Laminate & Prepreg

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Arlon's 45N is a tough, high Tg (175°C by DSC) multifunctional epoxy laminate and prepreg system designed for use in a variety of higher layer count MLB's. Processable using conventional FR-4 conditions

### Features:

- Meets IPC4101/26 description and specification
- High Tg by DSC (175°C)
- Resists barrel cracking and inner layer copper cracking during fabrication
- Resistant to Measling and Solder shock Defects
- UL-94 VO
- RoHS/WEEE Compliant
- Suitable for most Lead-Free applications

### Typical Applications:

- Automotive Under-hood applications
  - Backplanes and Mother Boards
  - Ball Grid Array Packaging
  - High layer count MLB's
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# 45N

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Typical Properties:

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## Availability:

Arlon Part Number	Glass Style	Resin (%)	Scaled Flow Hf (mils)	Scaled Flow $\Delta H$ (mils)
45N0675	106	75 $\pm$ 3	1.8 $\pm$ 0.3	0.55 $\pm$ 0.20
45N8065	1080	65 $\pm$ 3	2.4 $\pm$ 0.3	0.55 $\pm$ 0.20
45N2355	2313	55 $\pm$ 3	3.4 $\pm$ 0.3	0.55 $\pm$ 0.20
45N2650	2116	50 $\pm$ 3	3.9 $\pm$ 0.3	0.55 $\pm$ 0.20
45N2842	7628	42 $\pm$ 3	6.8 $\pm$ 0.3	0.55 $\pm$ 0.20

## Recommended Process Conditions:

Process inner-layers through develop, etch, and strip using standard industry practices. Use brown oxide on inner layers. Adjust dwell time in the oxide bath to ensure uniform coating.

Bake inner layers in a rack for 60 minutes at 225°F - 250°F (107°C - 121°C) immediately prior to lay-up. Vacuum desiccate the prepreg for 8 – 12 hours prior to lamination.

### Lamination Cycle:

- 1) Pre-vacuum for 30 minutes
- 2) Control the heat rise to 8°F-12°F (4.5°C - 6.5°C) per minute between 210°F and 300°F (100°C and 150°C)

Panel Size		Pressure	
in.	mm	psi	kg/cm <sup>2</sup>
12 x 18	305 x 457	275	19
16 x 18	406 x 457	350	25
18 x 24	457 x 610	400	28

- 3) Product temperature at start of cure = 360°F (180°C).
- 4) Cure time at temperature = 90 minutes
- 5) Cool down under pressure at  $\leq$  12°F/min (6°C/min)

**...Challenge Us!**

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