

84N MULTIFILM

POLYIMIDE PREPREG

FOR

FILLING CLEARANCE HOLES

84N Multifilm is a high resin content polyimide prepreg, with a proprietary filler, for use in filling clearance holes in metal cores. This product has been developed to provide the user with a film type material to fill clearance areas or holes that have been drilled or etched into a metal core for through hole interconnects.

Based on the same resin system as our 85N Non-MDA polyimide product, this prepreg is completely compatible with 85N polyimide material and its prescribed processes. This polyimide resin system was developed to ensure low Z-axis expansion, high heat resistance, and void free encapsulation. 84N Multifilm also improves thermal conductivity, crack resistance and will minimize resin shrinkage/recession in drilled holes and clearance areas. It can be used with Arlon's 85N polyimide prepreg and laminates, providing the feasibility for a single lamination cycle to fill the metal core and laminate multilayer boards together. The prepreg style is:

106(84N0680),RC=80%,RF50%,Ply yield=0.0015"

PROCESS RECOMMENDATIONS:

We suggest the use of vacuum or vacuum assist lamination at pressure of 200 PSI minimum, may need to be varied depending on panel size and product complexity. Pressure, temperature and time may vary depending on the available equipment, panel size, complexity as well as other factors. Controlling the heat up rate of the multilayer package to 8°F - 12°F (4 - 7°C) per minute, between 150°F and 300°F (65°C and 148°C) product temperature is recommended.

A cure time of >2 hours at 430°F to 435°F (221°C to 224°C) is recommended. This will ensure a fully cured product with a Glass Transition (T_g) of 250°C or higher and enhanced dimensional stability. If >2 hour cure at 430°F - 435°F is not completed in the press, an oven post cure may be required.

The MLB package should be cooled at 9°F (5°C)/min. From 435°F - 250°F (224°

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