

Prepreg and b-stage Transportation and Storage Guidelines

Norplex-Micarta produces many different types of thermoset composites. Some of these materials are sold in a form called “prepreg” or “b-stage”. These products require special transportation and storage conditions since they have not yet undergone the curing process by which a permanent chemical change called crosslinking occurs. This document has been prepared to help customers establish their own requirements for the transportation and storage of these uncured materials.

General Guidance:

Prepreg and b-stage materials prefer cooler and dryer storage conditions protected from direct exposure to light. Freezer storage of certain materials can extend the shelf-life of the product for months or years. Storage of prepreg and b-stage materials in climate-controlled conditions is always preferred.

Minimum Recommended Transportation and Storage Conditions:

It is recommended that prepreg and b-stage materials be transported and stored in conditions where the 24-hour average temperature does not exceed 75°F (24°C). For grades with natural fibers or melamine resin, it is further recommended that the relative humidity be controlled to less than 50%. The materials should be stored in their original packaging. If it is required to inspect the materials, care should be taken to replace any desiccant (if present) and reseal the protective coverings.

Care should be taken that materials are not exposed to temperatures more than 125°F (50°C) in transportation and storage. Prepreg and b-stage materials curing process is initiated with heat and while the level of reaction will be minimal at 125°F, it is enough to affect the processability of the materials.

Note: the above are recommendations only. Some customers do not strictly control for these environmental conditions in transportation and successfully process prepreg and b-stage materials.

Expected Shelf Life of Prepreg and B-stage:

The expected shelf life of prepreg and b-stage materials is difficult to predict for a variety of reasons, not least of which are the requirements of the customer’s curing process. Nevertheless, at the minimum recommendation of a transportation and storage location where the temperature does not exceed 75°F and no more than 50% relative humidity, most materials should have up to six months of processing life. Some materials may have as much as one year of shelf life.

It is important for customers to ascertain their own transportation and storage requirements relative to the needs of their process and risks of utilizing expired prepreg or b-stage materials. Norplex-Micarta’s sales and engineering staff are available to consult with customers and support the development of customer specific requirements.

Transportation and Storage of Cured Products:

The transportation, storage, and shelf life of Norplex-Micarta’s prepreg and b-stage materials after curing is different from the guidelines above. Recommendations for the storage of cured product is addressed in a separate document that is available on our website: https://www.norplex-micarta.com/wp-content/uploads/2017/07/Laminate_Life_Cycle_Policy.pdf