

---

## SHEETED PREPREG MATERIAL (REFRIGERATED)

---

### **1.0 SCOPE**

This standard provides for the packaging of sheeted preimpregnated (prepreg) materials requiring refrigeration and desiccant during shipment and storage.

### **2.0 REFERENCES (CURRENT ISSUE)**

- 2.1 Lockheed General Packaging Standard LPS 40-001
- 2.2 Hazardous Materials Regulations, Department of Transportation
- 2.3 Uniform Freight Classification
- 2.4 ICAO, Technical Instructions for the Safe Transport of Dangerous Goods by Air
- 2.5 IATA, Dangerous Goods Regulations
- 2.6 Consolidated Freight Classification
- 2.7 National Motor Freight Classification

### **3.0 REQUIREMENTS**

#### **3.1 GENERAL**

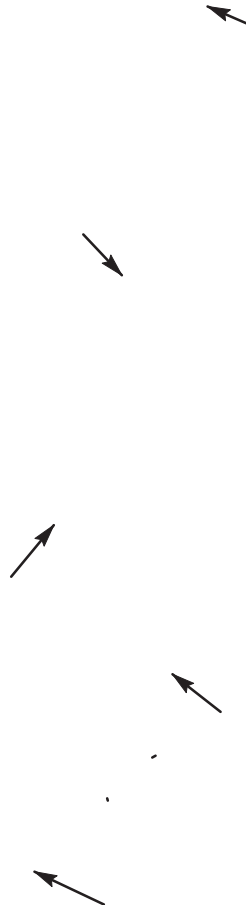
- 3.1.1 The supplier's package shall meet or exceed the General Packaging Requirements of LPS 40-001.
- 3.1.2 Prepreg sheets shall be maintained at a temperature of 40°F or colder, or at a temperature as specified in the LMSC Material Specification or Procurement Document.
- 3.1.3 Prepreg sheets shall be maintained at a relative humidity of 50% or less during shipment.
- 3.1.4 Samples are randomly selected from prepreg sheets sent. Allow sufficient material of plastic bag(s) to permit at least one additional reseal, or supply test samples in separate bag per procurement instructions. If this is not possible, enclose additional plastic bags in shipment to seal those bags that samples are taken from. Resealing plastic bags will protect prepreg sheets during storage.

**CAUTION:** SHEETS WILL BE DAMAGED IF BENT, KINKED, OR CREASED.

3.2.3 Tape stiffener pads on all four (4) sides so bagged prepreg sheets will be retained and supported. (See C)

3.2.4 Place protected prepreg sheets in a water-vaporproof, foil lined bag. Add sufficient amount of desiccant to maintain relative humidity at 50% or less during shipment. Close bag by heatsealing. Allow sufficient material to permit at least one additional reseal. (See D)

**CAUTION:** DO NOT PLACE DESICCANT IN DIRECT CONTACT WITH PREPREG SHEETS. PLACE DESICCANT BETWEEN BAGGED PREPREG SHEETS AND WATER-VAPOR PROOF, FOIL LINED BAG.



3.3 SHIPPING CONTAINER

3.3.1 Unless otherwise specified, the number of unit packages per shipping container (or parts) shall be limited to the dimensions and gross weight provisions of the container (reference Rule 41 of the Consolidated Freight Classification).

3.3.2 The shipping container shall be a corrugated fiberboard box, (Regular Slotted Container (RSC) or Overlap Slotted Container (FOL) style) meeting Common Carrier requirements.

3.4 PACKING – (See Figure 2)

3.4.1 Packing for nontemperature controlled vehicle shipments or

3.4.1.1 Shipping containers to be transported in nontemperature controlled vehicle shipments shall be limited to one (1) pound of dry ice per cubic foot of container volume. (SEE Figure 1) DRY ICE CAVITY CORRUGATED FIBERBOARD BOX (RSC OR FOL STYLE) DRY ICE

**CAUTION:** DRY ICE RELEASES CARBON DIOXIDE GAS. CONTAINERS MUST PROVIDE PROVISIONS FOR RELEASE OF CARBON DIOXIDE GAS.

3.4.1.2 Provisions shall be made in the shipping container on top and/or side for placement of carbon dioxide solid (dry ice).

**CAUTION:** DRY ICE SHALL NOT COME IN DIRECT CONTACT WITH NITROGEN PACKAGES.

**NOTE:** Figure 2 is for illustration purposes only. Supplier's standard commercial package will be accepted if the package meets or exceeds the packaging requirements of this document.

- j. Sheet/Roll number
- k. “Warning: Moisture is detrimental to material,” if required by P.O. or specification
- l. “40°F temperature or colder storage required”, unless otherwise specified in material specification.
- m. Limited–calendar–life control marking in accordance with the requirements of the material specification or purchase order.

3.5.1.2 Markings to remain legible until material is used.

### 3.5.2 SHIPPING CONTAINER MARKING

- 3.5.2.1 In addition to any special marking required by the material specification, contract, or order, label or mark each package to include the following:
- a. Part number per procurement document
  - b. Material description
  - c. Specification number and revision letter
  - d. Purchase order number
  - e. Manufacturer’s name, trademark, or symbol
  - f. Manufacturer’s lot number
  - g. Date of manufacture
  - h. Time of shipment
  - i. Manufacturer’s batch number
  - j. Manufacturer’s prepreg designation
  - k. Nominal width and length per sheet
  - l. Net linear feet per shipment
  - m. Gross weight
  - n. Limited–calendar–life control marking per Paragraph 3.5.1.1.
  - o. Precautionary handling/storage restrictions and markings as required; e.g., “This side UP,” “Wear Gloves if Handling Dry Ice,” “Material Must be Maintained at 40°F or Colder, Do not Store in Direct Sunlight,” etc.
  - p. Special markings required for shipments by air, “ORM–A, DRY ICE” (include weight of dry ice). For compliance with Department of Transportation (DOT).

## **4.0 QUALITY ASSURANCE**

- 4.1 Packaging shall be accomplished in such a manner as to prevent physical damage to, or degradation of, the packaged items during delivery to the using activity. It shall be the prerogative of LMSC to return damaged goods or packages in which the temperature and/or humidity shows noncompliance with Paragraphs 3.1.2 and 3.1.3, or when damage or degradation is attributable to improper or inadequate packaging. Return of such goods shall be at the supplier’s expense.

**5.0 NOTES**

5.1 The following information is intended as a guide or aid to suppliers in meeting the requirements of this specification.

5.1.1 Material Specifications

**Commodity**

**Military/Federal Specifications**