

---

## KUDL-PAK CONTAINER

---

### **1.0 SCOPE**

This standard provides a method for the individual packaging of a delicate part/component, in a reusable plastic container with convoluted foam cushioning.

### **2.0 REFERENCES**

- 2.1 Lockheed Packaging Standard LPS 40-001
- 2.2 Lockheed Packaging Standard P-201 "Thermal Control" Label
- 2.3 NAS Packaging Standard 3443

### **3.0 REQUIREMENTS**

#### **3.1 GENERAL**

- 3.1.1 The quantity per unit package shall be one (1) each.
- 3.1.2 Any loose item(s) required per part shall be enclosed in a separate plastic bag.
- 3.1.3 Exposed silver or silver-plated parts shall be protected with tarnish-inhibitor material. Minimum surface area of the tarnish inhibitor shall be twice the area of the silver surface of the item.

**NOTE:** The treated side of the inhibitor material must be facing the item.

**CAUTION:** ITEMS HAVING ANY SURFACES INCOMPATIBLE WITH THE TARNISH INHIBITOR SHALL BE COMPLETELY WRAPPED WITH A NEUTRAL MATERIAL PRIOR TO APPLICATION.

- 3.1.4 Tarnish inhibitor may be adjacent to but shall not be allowed to come in contact with chemically finished surfaces such as anodize, iridite, chromate coatings and other nonferrous metals (e.g., cadmium, copper or brass).
- 3.1.5 Protect all electrical connectors, exposed or projecting pins, contacts, etc., with proper size and style of protective caps (Ref Paragraph 5.1.2).
- 3.1.6 Shipments of items/materials classified as hazardous, e.g., flammable, toxic, combustible, corrosive, compressed gas, magnetic, radioactive, poisons, oxidizing materials, etc., shall be properly identified, packaged and marked in compliance with applicable carrier/state/federal regulations.
- 3.1.7 The operational integrity of the item(s) shall be protected against damage during shipment from the supplier to destination. Critical areas and/or surfaces of the item(s) shall be protected from abrasion by wrapping, blocking, cushioning, etc.

#### **3.2 UNIT PACKAGING**

- 3.2.1 Pad protrusions as required and place item in a transparent plastic bag. Enclose tarnish inhibitor (if applicable). Close bag by heat sealing, pressed closure, taping or stapling.

**NOTE:** Allow sufficient plastic material to permit at least one additional closure.

- 3.2.2 Place bagged item centrally between convoluted foam cushions (see Figure 1), and securely close lid.

**NOTE:** Container size with incorporated foam cushion shall be commensurate with the size of the item.

- 3.2.3 Foam cushioning shall be of sufficient density and thickness to adequately protect the item during handling/shipment.

#### **3.3 INTERMEDIATE PACKAGING** – (Consolidation of Unit Packages)

- 3.3.1 Unless otherwise specified, the number of unit packages per intermediate container (containing identical parts) shall be limited to the dimensions and gross weight provisions of the container specification (Ref Carrier Regulations).
- 3.3.2 Fill all voids with suitable dunnage, blocking or bracing to prevent damage during handling/shipment.

**3.4 PACKING**

- 3.4.1 Pack appropriate number of intermediate containers uniformly into each shipping container.
- 3.4.2 Shipping containers as packed, shall protect the item from damage during ordinary handling/shipping and shall meet the minimum requirements of common carriers for safe transportation at the lowest rate to the point of delivery.
- 3.4.3 Unit or intermediate containers which meet the requirements of Paragraph 3.4.2 may be used as shipping containers.
- 3.4.4 Enclose or attach a copy of packing slip to the shipping container.

**3.5 MARKING**

- 3.5.1 Unit Package Marking – Label or mark each package to show at least the part number per contracting document, quantity, and supplier identity. Packages containing tarnish inhibitor shall be marked/labeled: “Protected with Tarnish Inhibitor – Do Not Open Until Ready for Use or Inspection.” Additional markings may be specified in the item detail specification or drawing.
- 3.5.2 Intermediate Packaging Marking – Label or mark each container to show at least part number per contracting document, supplier and quantity of parts.
- 3.5.3 Shipping Container Marking – Label or mark each container to show part number per contracting document, the LMSC contracting document number, supplier, destination and quantity of parts.
- 3.5.4 Special, precautionary and handling markings shall be applied as required.

**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 items, at supplier’s expense, when such damage is attributable to improper or inadequate protection.

**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 DEFINITION – Unprotected Silver Surfaces. All metallic silver surfaces (having stringent reflectivity or conductivity requirements, close-tolerance finishes and/or dimensions, without supplementary tarnish-resistant treatment), the deterioration of which may result in premature failure or malfunction of the item or equipment having such surfaces.

5.1.2 REFERENCES

<u>Commodity</u>	<u>Military/Commercial Specifications</u>
Box, Corrugated	PPP-B-636
Corrugation, Flexible	PPP-P-291
Cushioning, Cellulosic	PPP-C-843
Cushioning, Free Flow	MIL-C-23734
Cushioning, Polyurethane	MIL-P-26514, Type I, Class 2
Foam, Cushioning (Convolutod)	Advanced Handling Systems, Inc., Los Angeles, CA
Kudl-Pak Containers	Navan Product, El Segundo, CA
Paper, Neutral	MIL-P-17667
Plastic Sheet	L-P-378
Protective Caps	MS 25177, 25178, 90376; NAS 813, 820
Tarnish Inhibitor	“Silver-Saver” – Daubert Chemical Co., Oakbrook, IL

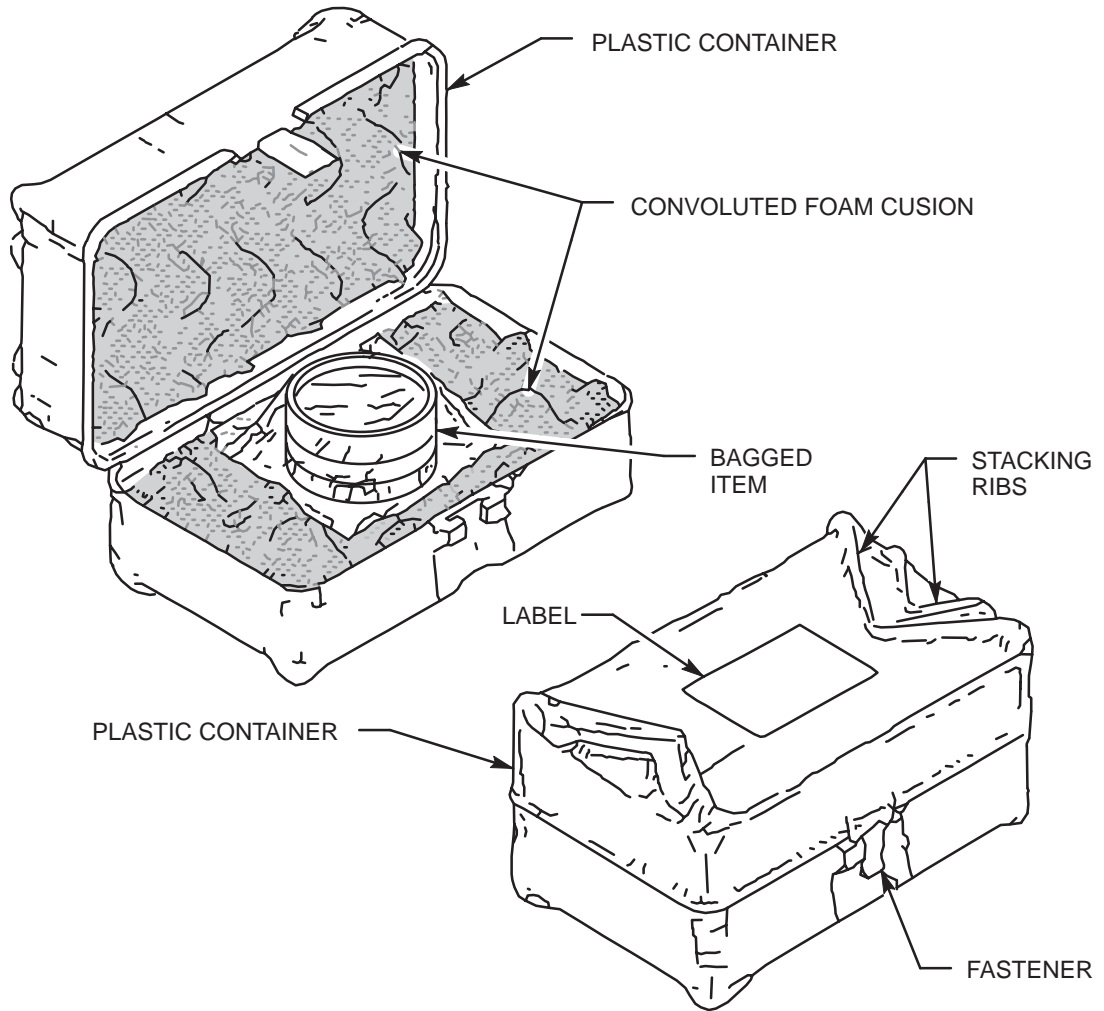


Figure 1. Unit Container