

LMSSC PACKAGING STANDARD

Revision 2
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3/21/2011

ONE PART CLEANED/PACKAGED TO SPECIFIC REQUIREMENTS

1.0 SCOPE

- 1.1 This standard provides a method for packaging of contamination controlled parts, components, lines, etc., assuring retention of the cleanliness level specified for the item.
- 1.2 Should there be a conflict between this packaging standard and program documentation regarding contamination (i.e., the contamination control plan, drawing or subcontract) the requirements in program documentation shall take precedence.

2.0 REFERENCES

- 2.1 Lockheed Packaging Standard LPS 40-001
- 2.2 NAS Packaging Standard 3447

3.0 REQUIREMENTS

3.1 GENERAL

- 3.1.1 The quantity per unit package shall be one (1) each.
- 3.1.2 The item shall be cleaned to the level of cleanliness specified in the applicable item drawing/specification.
- 3.1.3 Environment controlled work area, cleaning processes and materials shall be in conformance with standards invoked by the applicable environmental controlled document.
- 3.1.4 Special attention shall be given to the handling of clean hardware prior to packaging, to ensure that extraneous particulate contamination is not introduced into cleaned hardware before packaging.
- 3.1.5 All materials/devices in intimate contact with a significant surface or sealed within an intimate barrier shall be as clean as required for item. The material in direct contact with the item shall not deposit contaminants on the item to an extent greater than that permitted by the applicable cleanliness requirement.
- 3.1.6 Unless otherwise specified external threaded fittings/ports shall be sealed with proper size nonshedding, nonabrading caps of acetal polymers (Delrin or Celon), or by sealing with Capran 980 Nylon 6 plastic film.
- 3.1.7 Unless otherwise specified, internal plugs or push-on type caps shall not be used. Internal ports/openings shall be sealed with Capran 980 Nylon 6 plastic film.
- 3.1.8 Pressure-sensitive tape may be used to secure wraps over ports/fittings, etc., but the tape shall not contact critical surface areas.
- 3.1.9 Unless otherwise specified, halogenated plastics (materials containing elements of fluorine, chlorine, bromine or iodine) shall not be used for any clean room packaging application.
- 3.1.10 Any conflict between the use of packaging materials or methods specified in this standard and the item specification requirements, the requirements of the item specification shall take precedence.

3.2 UNIT PACKAGING

- 3.2.1 Unless otherwise specified, the cleaned item shall be placed in a transparent Capran 980 Nylon 6 bag, minimum .002-inch thick. Expel excess air from bag and close by heat sealing. Allow sufficient material to permit at least one additional heat seal.
 - a. Place bagged item into a second bag made from transparent polyethylene, minimum .004-inch thick. Expel air and heat-seal bag per Paragraph 3.2.1.
 - b. Each bagged item (with the exception of long irregularly formed lines) shall be individually over packaged/immobilized into a folding, setup or corrugated container.

5.3 MATERIAL/PROCESS SPECIFICATIONS

Material

Box, Fiberboard

Box, Closing

Cushioning, Polyurethane (Flexible)

Capran 980 Nylon 6 (Flexible)

Plastic Sheet/Strip (Polyethylene)

Protective Caps

Specification

ASTM D5118, Type CF, Class Domestic, SW, Style RSC, Grade 44 ect or 200 Mullen

ASTM D1974

MIL-PRF-26514, Type I, Class 2, Grade C

Commercial Polyamide (Heat Sealable)

A-A-3174, Type I, Class I

MS 25177, NAS 813, NAS 820, SAE-AS85049/138

Process/Document

Cleanliness/Clean Room Requirement

Cleanliness Control - Fluid Sys/Components

Cleanliness Control - Thrust Vector Control

Contamination Control

Environmental Control

Environmental Control

Standard/Specification

IEST-STD-CC1246D

WS 3737 (MSD)

WS 8179 (MSD)

MAP-211025

MAP-211026

OD 14379 (MSD)