

Windsor Locks, CT 06096

## ***Items of Interest 219***

***December 13, 2023***

**NOTE:** This Supplier Circular has been generated for all suppliers that provide products & services to Collins Aerospace Power and Controls and Global Operations Business Unit (Legacy Hamilton Sundstrand, Air Management Systems, Electric Systems & Engine Control Systems).

### **Packaging**

**This supplier advisory is to inform all suppliers of part packaging requirements. Damaged product due to inadequate packaging is one of the most common defect modes within our supply chain. The below techniques are to be used to work through issues as they arise as well as to be used proactively in eliminating the possibility of an occurrence before damage occurs.**

- Suppliers are to ensure product shipped to Collins, or Collins customers, is protected from transit damage. Special attention should be given to international shipments.
- COL-ASQR-PRO-0003-04 was recently released and includes reference to ASTM-D3951 for Commercial Packaging and MIL-STD-2073 for Military Packaging.
- Collins drawing or Purchase Order may include additional packaging requirements, such as HS1550.
- Clear instructions, with pictures, help ensure packaging is completed right, every time.
- For product that requires PPAP per ASQR-09.2, suppliers shall use COL-FRM-1018 or equivalent. This form can be found on the Supplier Portal:  
<https://suppliers.utc.com/SPPortal/Pages/UPPAP>
- Future training is anticipated to be available in 2024.

#### ASTM-D3951

- This is a short specification that refers to 14 part-specific specs.
- Establishes minimum requirements for packaging of supplies and equipment.
- Covers the requirements for the commercial preservation, packaging, packing (exterior container), unitization, and marking for supplies and equipment. It provides for multiple handling and shipment by any mode, and storage periods of a minimum of one year in enclosed facilities without degradation or damage to the product within the container.

#### MIL-STD-2073-1

- This is a very detailed specification.
- Outlines standard processes for the development and documentation of military packaging. This standard covers methods of preservation to protect material against environmentally induced corrosion and deterioration, physical and mechanical damage, and other forms of degradation during storage, multiple handling, and shipment of materiel in the Defense Transportation System (DTS).

#### HS1550

- This is a high-level specification that is required when called out on the Collins drawing.
- HS1550 is listed on the Collins Report 80 as “DQR Verified”, which requires that the DQR verifies compliance to HS1550 prior to parts shipping to Collins.

Below are examples of part packaging designed to protect the parts.

Packaging Example 1:



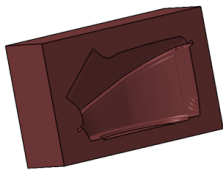
Packaging Example 2:



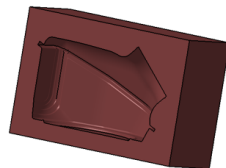
Packaging Example 3:



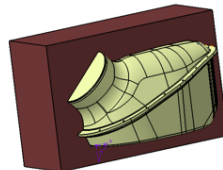
Packaging Example 4:



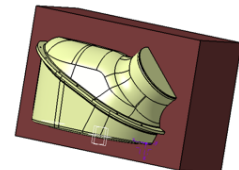
Foam 1<sup>st</sup> half



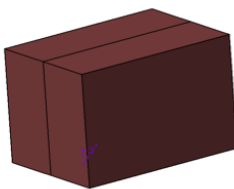
Foam 2<sup>nd</sup> half



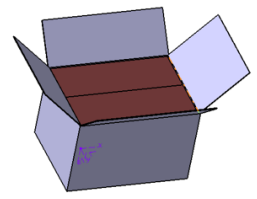
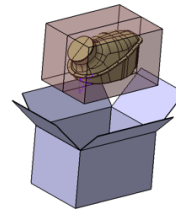
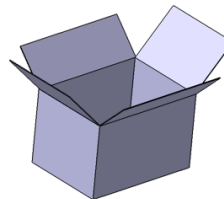
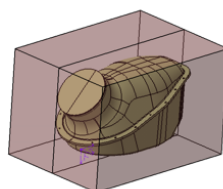
1<sup>st</sup> half foam with part



2<sup>nd</sup> half foam with part



Part inside the foam



Packing with Carton box

**For more information, contact the SRC through the SRI system on the Supplier Portal.**  
Supplier Circulars cover items of interest, interpretation of drawings and specifications as well as clarifications of Hamilton Sundstrand procedures. In addition, they bring attention to examples of problems encountered by other suppliers and present their solutions for possible application in your organization. After review and appropriate action, file this circular for the future reference.

**This document does not contain any technical data subject to regulation.**