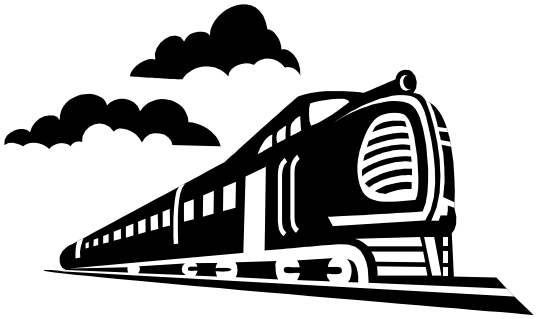
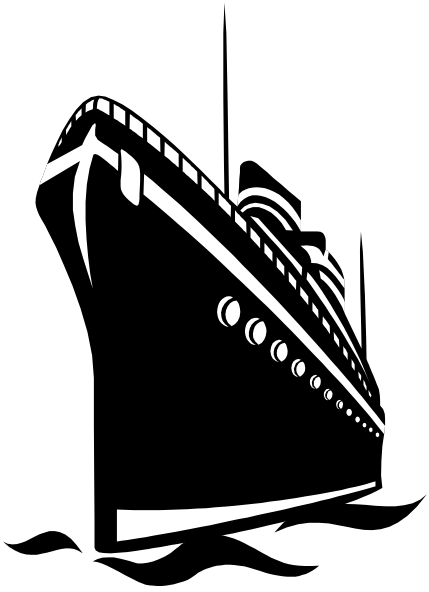
REUSABLE CONTAINER, SINGLE LID, SHIPPING AND STORAGE, FOR WORLD-WIDE, GOVERNMENT TYPE TRANSPORT AND HANDLING





1. Scope

This specification establishes the performance and design criteria description for molded plastic containers that will provide protection for equipment from environmental conditions encountered during world-wide shipment and storage.

2. Applicable Documents

2.1 Government and Industry Documents The following documents of the issue in effect on date of invitation for bids or request for proposal, form a part of the specification to the extent specified herein.

SPECIFICATIONS

AMERICAN NATIONAL STANDARDS

ASTM D 4976	Standard Specification for Polyethylene Plastics Molding and Extrusion Materials
ASTM D 951	Water Resistance of Shipping Containers by Spray Method
ASTM D 4169	Performance Testing of Shipping Containers and Systems
ISO 9001:2000	Quality Management System

MILITARY

MIL-P-15024	Plates, tags and bands for identification of equipment.
MIL-PRF-26514	Polyurethane Foam, Rigid or Flexible, For Packaging

AEROSPACE STANDARDS

SAE AS27166	Valve, pressure equalizing, gaseous products.
SAE AS26860	Indicator, humidity, plug, color change.

STANDARDS

FEDERAL

FED-STD-101	Test procedures for packaging material.
PPP-C-1752	Cushioning Material, Packaging, Polyethylene Foam
L-P-390	Plastic, Molding and Extrusion Material, Polyethylene and Copolymers

MILITARY

MIL-STD-105	Sampling procedures and tables for inspection by attributes.
MIL-STD-129	Marking for shipment and storage
MIL-STD-1472	Human Engineering Design Criteria for Military Systems

COMMERCIAL ITEM DESCRIPTION

A-A-59136	Cushioning Material, Packaging, Closed Cell Foam Plank

3. Requirements

3.1 Description

Material, size, capacity and performance requirements shall be as specified by this document.

3.2 Performance requirements and product characteristics

The shipping and storage container, herein referred to as the container, shall meet the following product characteristics and performance requirements:

3.2.1 Material

3.2.1.1 Container

The container shall be rotationally molded of virgin polyethylene meeting the requirements of Federal Specification L-P-390 Type 1, Class M or H, Grade 2 for older products and programs. For new products and programs, molded container material will be IAW ASTM D 4976-00b, PE223. Corners and edges to be a minimum 10% thicker than flat wall surfaces.

Ultra violet stabilizers shall be compounded into the polyethylene shell material. Resultant minimum operational and uncontrolled storage life shall be 10 years. Controlled storage life shall be excess of 15 years.

The container shell shall be rectangular in design with rounded corners and edges.

Vertical recesses shall be molded-in to provide protected areas for attachment of all hardware.

Male inter-locking stacking ribs shall be molded into the top surface and corresponding female ribs molded into the bottom surface. The container structure shall be self draining in the normal upright shipping attitude. Color shall be standard gray or other color as specified in Purchase Order or Contract documents.

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3.2.1.2 Closure

An airtight seal shall be accomplished by using a tongue-in-groove gasketed parting line. The parting line will be formed with the container shell during molding.

3.2.1.3 Indexing/Anti-shear Feature

Indexing and Anti-shear features shall be molded into the parting line or attached at each catch and hinge location.

3.2.1.4 Gasket

A closed loop elastomeric gasket shall be provided within the tongue-in-groove parting line to effect an airtight/watertight seal.

3.2.1.5 Fasteners

Low profile wing turn, cam action, fasteners shall be located on the base section of the container. Corresponding strikes shall be located on the lid section of the container. Each catch and strike will be secured to hollow stainless steel metal inserts molded within the container wall. Stainless steel rivets shall be used to secure the fastener and strike to the metal insert. Fastener material shall be plated steel or 300 series stainless steel as specified in Purchase Order or Contract documentation.

3.2.1.6 Handles

Ninety degree (90°) stop chest style handles shall be provided on the vertical surfaces of the container. Placement shall be above the center of gravity. A minimum of two (2) handles are required for gross loads under 65 lbs. Location and placement of handles shall be in accordance with MIL-STD-1472.

3.2.1.7 Lifting Grips

180° degree ring movement style lifting grip shall be provided on vertical surface of the container. Placement, whenever possible, shall be above the center of gravity. Four (4) lifting grips shall be provided.

3.2.1.8 Pressure Relief Valve

An automatic/manual relief valve conforming to SAE AS27166 shall be provided. Cracking pressure shall be 0.50 PSIG vacuum and 0.50 PSIG pressure.

3.2.1.9 Humidity Indicator

A humidity indicator conforming to SAE AS26860 shall be provided if required.

3.2.1.10 Marking

In addition to any special markings required by purchase order or contract documentation , all shipments shall be marked in accordance with MIL-STD-129. Identification plates, if required, will be aluminum IAW MIL-P-15024, Type H.

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3.2.1.12 Fork Truck Protection Plates

Aluminum protection plates, when applicable, shall be installed above 2 way fork truck opening. Location shall be on the lowest front and rear vertical surfaces of the container base if applicable.

3.2.1.13 Cushioning

Foam inserts shall be constructed of unicellular polyethylene foam conforming to PPP-C-1752, and Type V ,Class 2 for older established products and programs. For new product or program developments, polyethylene inserts will be IAW Commercial Item Description (CID) A-A-59136, all Classes, Grades and Types.

When applicable, polyurethane foam inserts may be used with materials IAW MIL-PRF-26514, Type, Class and Grade as specified in Purchase Order or Contract documentation

4.0 Testing

4.1 Drop Test

Drop Tests, of a fully loaded container, shall be conducted in accordance with Federal Test Method Standard 101, Method 5007, Procedure A, or ASTM-D-4169, Distribution Cycle (DC) 18.

4.2 Vibration Test

Loose Load Vibration test of a loaded container shall be conducted IAW ASTM D 4169, Schedule F, Assurance Level 1, per Distribution Cycle (DC) 18, in three (3) axis.

4.3 Leak Test

Spray-tight test shall be performed in accordance with ASTM D 951, High Intensity Level. In addition, air tightness shall be verified in accordance with Federal Test Method Standard 101, Procedure 5009, Pneumatic Pressure Technique. Test pressure shall be 0.50 PSIG.

4.4 Certification

Vendor shall certify deliverable items to the performance requirements of this specification by similarity.

5.0 Inspection

5.1 Quality Assurance

Vendor shall maintain a Quality Management System in accordance with ISO 9001:2000

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