



AEROSPACE STANDARD	AS6055™	
	Issued Reaffirmed	2001-12 2017-11
Drum, Metal Reusable, Shipping and Storage (Cap. from 88 to 510 Cubic Inches)		
		FSC 8110

RATIONALE

AS6055 has been reaffirmed to comply with the SAE Five-Year Review policy.

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This document has been taken directly from U.S. Military Specification MIL-D-6055D, Amendment 1 and contains only minor editorial and format changes required to bring it into conformance with the publishing requirements of SAE technical standards. The initial release of this document is intended to replace MIL-D-6055D, Amendment 1. Any part numbers established by the original specification remain unchanged.

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1. SCOPE:

1.1 Scope:

This specification covers the requirements for new reusable cylindrical drums consisting of body, cover, gasket, and closing device(s) to be used as interior and exterior shipping containers.

1.2 Classification:

Drums, metal, shipping, and storage, shall be of the following types, classes, and sizes as specified (see MS24347 and 6.2).

Type I	- Formed Drum
Type II	- Drawn Drum
Class A	- Aluminum Alloy Drum
Class S	- Steel Drum
Style D	- Dome Cover
Style R	- Recessed Cover
Size No. 1	- 88 Cubic Inch Capacity
Size No. 2	- 167 Cubic Inch Capacity
Size No. 3	- 149 Cubic Inch Capacity
Size No. 4	- 224 Cubic Inch Capacity
Size No. 5	- 282 Cubic Inch Capacity
Size No. 6	- 340 Cubic Inch Capacity
Size No. 7	- 425 Cubic Inch Capacity
Size No. 8	- 510 Cubic Inch Capacity

2. REFERENCED DOCUMENTS:

2.1 Government documents:

- 2.1.1 Specifications, standards, and handbooks: The following specifications, standards, and handbooks form a part of this specification to the extent specified herein. Unless otherwise specified, the issues of these documents shall be those listed in the issue of the Department of Defense Index of Specifications and Standards (DODISS) and supplement thereto, cited in the solicitation.

SPECIFICATIONS

Federal

TT-P-1757	Primer Coating, Zinc Chromate, Low Moisture Sensitivity
TT-E-485	Enamel; Semi-Gloss, Rust-Inhibiting
PPP-B-636	Box, Fiberboard

2.1.1 (Continued):

PPP-C-1120	Cushioning Material, Uncompressed Bound Fiber for Packaging
PPP-C-1752	Cushioning Material, Packaging, (Unicellular Polyethylene Foam, Flexible)

Military

MIL-P-116	Preservation, Methods of
MIL-R-6855	Synthetic Rubber Sheet, Strips, Molded or Extruded Shapes
MIL-A-8625	Anodic Coatings, For Aluminum and Aluminum Alloys
MIL-I-26860	Indicator, Humidity, Plug, Color Change

STANDARDS

Federal

FED STD-101	Test Procedures for Packaging Materials
FED-STD-595	Colors

Military

MIL-STD-105	Sampling Procedures and Tables for Inspection by Attributes
MIL-STD-129	Marking for Shipment and Storage
MIL-STD-130	Identification Marking of US Military Property
MIL-STD-147	Palletized Unit Loads
MIL-STD-2073	DOD Material Procedures for Development and Application of Packaging Requirements
MS24347	Drum, Metal, Reusable Shipping and Storage

(Copies of specifications, standards, handbooks, drawings, publications, and other Government documents required by contractors in connection with specific acquisition _____ should be obtained from the contracting activity or as directed by the contracting activity.)

2.2 Other publications:

The following document(s) form a part of this specification to the extent specified herein. Unless otherwise specified, the issues of the documents which are DOD adopted shall be those listed in the issue of the DODISS specified in the solicitation. Unless otherwise specified, the issues of documents not listed in the DODISS shall be the issue of the nongovernment documents which is current on the date of the solicitation.

American Society for Testing and Materials (DOD adopted)

ASTM A109	Steel, Strip, Carbon, Cold Rolled, Spec. for
ASTM A366	Steel, Sheet, Carbon, Cold Rolled, Commercial Quality, Spec. for

2.2 (Continued):

ASTM D3951	Commercial Packaging, Practice for
ASTM B117	Salt Spray (Fog) Testing, Standard for
ASTM D610	Evaluating Degree of Rusting on Painted Steel Surfaces

(Application for copies should be addressed to American Society for Testing and Materials, 1916 Race Street, Philadelphia, PA 19103)

(Nongovernment standards and other publications are normally available from the organizations which prepare or which distribute the documents. These documents also may be available in or through libraries or other informational service.)

2.3 Order of precedence:

In the event of a conflict between the text of this specification and the references cited herein (except for associated detail specifications, specification sheets or MS standards), the text of this specification shall take precedence. Nothing in this specification, however, shall supersede applicable laws and regulations unless a specific exemption has been obtained.

3. REQUIREMENTS:

3.1 MS sheets:

The individual item requirements shall be as specified herein and in accordance with the applicable MS sheet. In the event of any conflict between the requirements of this specification and the MS sheet, the latter shall govern.

3.2 First article:

When specified in the contract or purchase order a sample shall be subjected to first article inspection (see 4.4, 6.2, and 6.3).

3.3 Material:

The material shall be as specified herein. However, when a specific material is not designated, a material shall be used which will enable the drums to meet the performance requirements of this specification. Acceptance or approval of any constituent material shall not be construed as a guarantee of the acceptance of the finished product.

3.3.1 Class A drums: Drums and covers shall be constructed of an aluminum or aluminum alloy to satisfy the test, surface finish, and serviceability of this specification. The closing device shall be fabricated or coated with a metallic material compatible with respect to its position in the galvanic series, as the aluminum used in the drum and cover (see 4.5).

3.3.2 Class S drums: Drums and covers shall be constructed of steel conforming to the requirements of ASTM A366. Strips for lugs and locking rings shall conform to ASTM A109, and be constructed of cold rolled strip steel, quarter-hard No. 3 temper, edge condition No. 4 round edge rolled and free from burrs and sharp edges. The closing device shall be fabricated from material which will exclude any galvanic corrosion between components of the drum and shall be free from burrs and sharp edges (see 4.5).

3.3.3 Gaskets: Gaskets shall be formed from synthetic rubber conforming to MIL-R-6855, Class II, grade 60. After forming, the gaskets shall lie naturally with the flat surface parallel to the horizontal plane (see 4.6.3).

3.4 Design and construction:

The drum and components shall be constructed in accordance with MS24347, except that metal thicknesses shown in the drawing shall be interpreted as specified minimal. The dimensions of each drum design and effective thicknesses of its components shall be such that the drum meets all the requirements of 4.5 and 4.6.2 of this specification.

3.4.1 Cover: The drum cover may be either recessed or dome style. Unless otherwise specified by the procuring activity, the recessed drum cover will be furnished in accordance with MS24347. Evaluate in accordance with 4.6.2 and 4.6.4.

3.4.2 Locking ring seal and closure device: The closure device shall consist of a locking ring, a bolt and nut conforming to MS24347, and a fixture to place a wire and lead tamperproof seal that cannot be removed without destroying the seal (see 4.6.1 and 4.6.4.1). The bolt and lugs shall not be distorted when the closure device is subjected to the required torque (see 4.5.1). Other types of closing devices may be used providing they are specified by the procuring agency and meet the other test requirements in this specification (see 4.6.3).

3.4.3 Relative humidity indicator plug: When specified by the procuring activity, the drum body shall be provided with a humidity indicator plug conforming to MIL-I-26860, type II (see 6.2). The provision shall allow for a hermetic seal between the drum body and the indicator plug (see 4.6.4.1).

3.5 Performance:

3.5.1 Drum leakage: Drums shall show no leaks when tested in accordance with first article and quality conformance testing as defined by paragraphs 4.5.2 and 4.6.

3.5.2 Rough handling: Drums must be able to withstand all tests in 4.5.3.

3.5.3 Cover fit: The drum shall show no sign of leakage after removing and replacing the cover on the loaded drum, which was subjected to the rough handling test (4.5.3) and the cover fit test (4.5.4).

3.6 Finish:

See 4.5.8 and 4.6.4.1.

- 3.6.1 Class A drums: Aluminum alloy components of the class A drums shall be anodized on all surfaces in accordance with MIL-A-8625. All exterior aluminum surfaces of the drums shall be coated with not less than one dry film coat of zinc chromate primer conforming to TT-P-1757 of thickness between .0006 and .0009 inches, and .0005 inches thick of enamel conforming to TT-E-485, color number 24087, FED-STD-595. The closure device, if made from steel, shall be finished as specified in 3.6.2 for class S drums.
- 3.6.2 Class S drums (also steel closure device of class A drums): Unless otherwise specified, (see 6.2) all interior and exterior surface finishes of the drum and component parts, except the closing bolt and gasket, shall not be less than 1.0 mil thick and conform to TT-E-485 or be the standard corrosion inhibiting baking enamel used in the production of steel drums. The color and finish shall be in accordance with number 24087 of FED-STD-595.
- 3.6.3 Flexibility: The protective coatings of all class drums shall not crack when tested in accordance with 4.5.5 and 4.6.4.1.
- 3.6.4 Salt spray: See 4.5.8.
 - 3.6.4.1 Class A drum: All specimens shall be examined after 192 hours of salt spray and shall show no wrinkling or blistering of enamel. The sample exhibiting the greatest degree of softening shall then be air dried for a period of 24 hours. The coating of this sample shall be indistinguishable with regard to hardness and adhesion of enamel, from samples prepared by the same process but not subjected to the salt spray test. For the remaining samples, the primer shall exhibit no blistering or lifting of the coating or substrate corrosion after completion of the 1000 hours of salt spray testing.
 - 3.6.4.2 Class S drum: Results of the salt spray test examination after 192 hours shall show no rust creepage, blistering, undercutting, or loss of adhesion of the paint beyond 1/8 inch of the scribe mark. All other surfaces of the test specimens shall show no more than a trace of film failure, (Rust Grade 9 of ASTM D610), with none larger than 1 mm (3/64 inch) in diameter.

3.7 Marking:

The drum bodies shall be marked in accordance with MIL-STD-130 and shall be marked, stamped, stenciled, or painted with waterproof ink or paint in .3750 inch letters as follows:

REUSABLE DRUM
DO NOT DESTROY