Designation: A 625/A 625M – 03

Standard Specification for Tin Mill Products, Black Plate, Single-Reduced[1]

This standard is issued under the fixed designation A 625/A 625M; the number immediately following the designation indicates the year of original adoption or, in the case of revision, the year of last revision. A number in parentheses indicates the year of last reapproval. A superscript epsilon (ε) indicates an editorial change since the last revision or reapproval.

This standard has been approved for use by agencies of the Department of Defense.

1. Scope

1.1 This specification covers single-reduced black plate produced from low carbon, cold-reduced steel, furnished in coils and cut sizes, for use in the manufacture of containers, closures, signs, toys and other products, as well as for plating applications.

1.2 It may be supplied dry or oiled and with or without surface treatment. This product is normally supplied with a trimmed edge.

1.3 This specification is applicable to orders in either inch-pound units (as A 625), which is supplied in thicknesses from 128-lb base weight (0.0141 in.) and lighter, or SI units (as A 625M), which is supplied in thicknesses from 0.358 mm and lighter.

1.4 The values stated in either inch-pound or SI units are to be regarded as standard. Within the text, the SI units are shown in brackets. The values stated in each system are not exact equivalents; therefore, each system must be used independently of the other. Combining values from the two systems may result in nonconformance with this specification.

2. Referenced Documents

2.1 *ASTM Standards:*

A 623 Specification for Tin Mill Products, General Requirements[2]

A 623M Specification for Tin Mill Products, General Requirements [Metric][2]

3. Ordering Information

3.1 Orders for product under this specification shall include the following information, as required and applicable, to adequately describe the desired materials.

3.1.1 Name of product (single-reduced black plate).

3.1.2 Surface appearance and finish (Section 4).

3.1.2.1 Dry.

3.1.2.2 Oiled (type of oil; mineral or suitable for lithographing) (Section 5).

3.1.2.3 Chemically treated and oiled (see Specification A 623 or Specification A 623M).

3.1.3 Thickness (see Specification A 623 or Specification A 623M).

3.1.4 Width.

3.1.5 Length, for cut sizes only.

3.1.6 Rolling direction must be specified by underlining the steel (rolling width) for cut sizes.

3.1.7 Steel type (see Specification A 623 or Specification A 623M).

3.1.8 Mechanical designation requirements (see Specification A 623 or Specification A 623M).

3.1.9 Intended application.

3.1.10 Quantity, in base boxes [SITAs] (see Note 5).

3.1.11 On coils, specify minimum of range or acceptable inside diameters. The standard inside diameter is approximately 16 in. if ordered to Specification A 625 [410 mm if ordered to Specification A 625M]. Coils should be specified to a maximum coil weight if ordered to Specification A 625 [mass if ordered to Specification A 625M] or maximum outside diameter, or both.

3.1.12 Packaging.

3.1.13 ASTM specification designation and year of issue.

3.1.14 Special requirements, where applicable.

NOTE 1—A typical ordering description is as follows: 1000 Base Boxes, Single-Reduced Black Plate, oiled, 80 lb base weight, 30 in. by coil, MR, T5CA for lithographed can bodies to ASTM A 625/A 625M - XX. [600 SITAs, Single-Reduced Black Plate, oiled, 0.25 mm, 810 mm by coil, MR, T5CA for lithographed can bodies to Specification A 625/A 625M.

NOTE 2—A typical ordering description for cut sizes is as follows: 500 Base Boxes, Single Reduced Black Plate, oiled, 80 lb base weight MR, T-2 BA, 7C, 30¾ in. by 30 7/16 in., for lithographed can bodies in accordance with Specification A 625/A 625M - XX. [100 SITAS, Single Reduced Black Plate, oiled, MR, T-2 BA, 7C, 0.28 mm thickness, 781 by 773 mm, for lithographed can bodies in accordance with Specification A 625M/A 625M - XX.]

NOTE 3—The production of coils does not afford the same opportunity for inspection, grading, and sorting as does the production of cut sizes. Accordingly, appropriate processing and quality control procedures are

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[2] *Annual Book of ASTM Standards,* Vol 01.06.

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required by the purchaser to obtain optimum utilization of the material. Cut sizes are line-inspected visually and mechanically during production. Sheets having surface imperfections that will not interfere with their utilizations are included.

NOTE 4—Single-reduced black plate is highly susceptible to rusting and must be properly handled during transit and storage.

NOTE 5—In inch-pound units single-reduced black plate is supplied on an area basis expressed in base boxes. In coils, the number of base boxes is computed from the measured length and the specified width. In cut lengths, the number of base boxes is computed from the specified length and width dimensions and sheet count. For calculating mass, the density of steel for tin mill products is 0.2836 lbf/in.^{3}. In SI units single-reduced black plate is supplied on an area basis computed in SITAs. In coils, the number of SITAs is computed from the specified length and the specified width. In cut lengths, the number of SITAs is computed from the specified length and width dimensions and sheet count. For calculating mass, the density of steel for tin mill tests is 7850 kg/m^2.

4. Surface Appearance and Finish

4.1 *Surface Appearance*—Single-reduced black plate is customarily produced with ground roll and shot-blasted roll finishes as follows:

4.1.1 *Ground-Roll Finishes*:

4.1.1.1 *7A*—A lustrous smooth finish intended for electroplating by the purchaser.

4.1.1.2 *7B*—A smooth finish that may contain fine grit lines. This finish is specified for special applications.

4.1.1.3 *7C*—A smooth finish with grit lines. The surface roughness will range from 10 to 25 µin. Ra [0.254 to 0.635 µm Ra]. This is the standard finish for tin mill products.

4.1.2 *Blasted and/or Otherwise Textured Roll Finishes*:

4.1.2.1 *5A*—A shot-blasted finish (SBF) intended for lithographing.

4.1.2.2 *5C*—A shot-blasted finish (SBF) for general applications. The surface roughness will range from 30 to 60 µin. Ra [0.760 to 1.52 µm Ra].

5. Oiling

5.1 Black plate is furnished oiled or dry. Unless indicated by the purchaser, single-reduced black plate will be supplied dry. Any required oiling treatment will be negotiated between the purchaser and the supplier.

6. General Requirements for Delivery

6.1 Product furnished under this specification shall conform to the applicable requirements of the current edition of Specification A 623 or Specification A 623M unless otherwise provided herein.

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