



**Designation: A 623M – 00
METRIC**

Standard Specification for Tin Mill Products, General Requirements [Metric]¹

This standard is issued under the fixed designation A 623M; 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.

INTRODUCTION

This specification is the metric counterpart of Specification A 623. It is not intended to replace A 623. Users of the standard should note several very significant differences in how the product is produced and marketed.

(1) The metric product does not carry the overrun associated with tin mill products produced to customary units. Metric tin mill products are produced to ordered size.

(2) The metric product is designated in units of 100 m² called a SITA (System International Tinplate Area), rather than in base boxes.

(3) The metric product is designated by thickness in millimetres rather than by basis weight.

(4) Coating weights are given in grams per square metre, not pounds per base box.

(5) Thickness tolerances are given in absolute figures instead of a $\pm$ percentage.

(6) Each package of metric tin mill products contains 100 sheets, not the 112 of customary unit packages.

All of the above significant differences, as well as others of lesser consequence, should be considered when switching from Specification A 623 to A 623M.

1. Scope

1.1 This specification covers a group of common requirements which, unless otherwise specified in the purchase order or in an individual specification, shall apply to tin mill products.

1.2 The following safety hazards caveat pertains to Annex A1 through Annex A8 of this specification: *This standard does not purport to address all of the safety concerns, if any, associated with its use. It is the responsibility of the user of this standard to establish appropriate safety and health practices and determine the applicability of regulatory limitations prior to use.*

NOTE 1—This metric specification is equivalent to Specification A 623 and is compatible in technical content.

2. Referenced Documents

2.1 ASTM Standards:

A 370 Test Methods and Definitions for Mechanical Testing of Steel Products²

A 700 Practices for Packaging, Marking, and Loading Methods for Steel Products for Domestic Shipment³

E 18 Test Methods for Rockwell Hardness and Rockwell Superficial Hardness of Metallic Materials⁴

E 112 Test Methods for Determining the Average Grain Size⁴

2.2 Military Standards:

MIL-STD-129 Marking for Shipment and Storage⁵

MIL-STD-163 Steel Mill Products, Preparation for Marking and Storage⁵

2.3 Federal Standard:

Fed. Std. No. 123 Marking for Shipment (Civil Agencies)⁵

3. Terminology

3.1 Definitions:

3.1.1 *black plate, n*—light-gage, low-carbon, cold-reduced steel intended for use in the untinned state or for the production of other tin mill products. It is supplied only in a dry or oiled condition.

3.1.2 *box annealing, n*—a process involving slow heating of coils to a subcritical temperature, holding, and cooling therefrom, to recrystallize the grain, and thus, relieve stresses

¹ This specification is under the jurisdiction of ASTM Committee A01 on Steel, Stainless Steel, and Related Alloys and is the direct responsibility of Subcommittee A01.20 on Tin Mill Products.

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² *Annual Book of ASTM Standards*, Vol 01.03.

³ *Annual Book of ASTM Standards*, Vol 01.05.

⁴ *Annual Book of ASTM Standards*, Vol 03.01.

⁵ Available from Standardization Documents Order Desk, Bldg. 4 Section D, 700 Robbins Ave., Philadelphia, PA 19111-5094, Attn: NPODS.