



Designation: A630 – 16a^{ε1}

Standard Test Methods for Determination of Tin Coating Weights for Electrolytic Tin Plate¹

This standard is issued under the fixed designation A630; 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 U.S. Department of Defense.

^{ε1} NOTE—A Summary of Changes was added editorially in January 2017.

INTRODUCTION

Four test methods for determination of tin coating weights are described. These are typical methods and represent those most commonly used in the tin plate industry. Publication of these test methods is not intended to preclude the use of any other methods such as X-ray fluorescence measurement systems for control purposes by the consumer or supplier. However, in case of dispute, the referee method is to be used to determine conformance to Specification A624/A624M and Specification A626/A626M.

Sampling procedures for tin coating-weight testing and applicable standards for the specific class designation are outlined in Specification A624/A624M and Specification A626/A626M.

1. Scope*

1.1 These test methods include four methods for the determination of tin coating weights for electrolytic tin plate as follows:

Test Method	Sections
A—Bendix Test Method	3 to 9
B—Constant-Current, Electrolytic Test Method (Referee Method)	10 to 17
C—Sellar's Test Method	18 to 27
D—Titration Test Method	28 to 36

1.2 The values stated in inch-pound units are to be regarded as standard. The values given in parentheses are mathematical conversions to SI units that are provided for information only and are not considered standard.

1.3 *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.*

¹ These test methods are under the jurisdiction of ASTM Committee A01 on Steel, Stainless Steel and Related Alloys and are the direct responsibility of Subcommittee A01.20 on Tin Mill Products.

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2. Referenced Documents

2.1 ASTM Standards:²

A624/A624M Specification for Tin Mill Products, Electrolytic Tin Plate, Single Reduced

A626/A626M Specification for Tin Mill Products, Electrolytic Tin Plate, Double Reduced

D1125 Test Methods for Electrical Conductivity and Resistivity of Water

METHOD A—DETERMINATION OF THE TIN COATING WEIGHTS BY THE BENDIX TEST METHOD

3. Scope

3.1 This test method covers the determination of tin coating weights on steel plate.

4. Summary of Test Method

4.1 The procedure involves dissolution of tin from a tin plate anode in a dilute hydrochloric acid solution containing a

² For referenced ASTM standards, visit the ASTM website, www.astm.org, or contact ASTM Customer Service at service@astm.org. For *Annual Book of ASTM Standards* volume information, refer to the standard's Document Summary page on the ASTM website.

*A Summary of Changes section appears at the end of this standard