



Designation: A 682/A 682M – 00

An American National Standard

Standard Specification for Steel, Strip, High-Carbon, Cold-Rolled, General Requirements For¹

This standard is issued under the fixed designation A 682/A 682M; 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 the general requirements for cold-rolled carbon spring steel strip in coils or cut lengths. Strip is classified as product that is 0.3000 in. (7.6 mm) or less in thickness and over $\frac{1}{2}$ to $23\frac{15}{16}$ in. (12.5 to 600 mm) in width, inclusive. Strip tolerance products may be available in widths wider than $23\frac{15}{16}$ in. (600 mm) by agreement between purchaser and supplier; however, such products are technically classified as cold-rolled sheet.

1.2 The maximum of the specified carbon range is over 0.25 % to 1.35 %, inclusive.

1.3 The above shall apply to the cold-rolled carbon spring steel strip furnished under each of the following specifications issued by ASTM:

Title of Specification	ASTM Designation
Steel, Strip, High Carbon, Cold Rolled	A 684/A 684M

1.4 The tolerances in this specification are different than Specification A 568/A 568M and Specification A 109/A 109M.

1.5 For the purpose of determining conformance with this specification, values shall be rounded to the nearest unit in the right hand place of figures used in expressing the limiting values in accordance with the rounding method of Practice E 29.

1.6 The metric portions of the tables herein list permissible variations in dimensions and mass (see Note 1) in SI (metric) units. The values listed are not exact conversions of the values listed in the inch-pound tables, but instead are rounded or rationalized values. Conformance to SI tolerances is mandatory when the “M” specification is used.

NOTE 1—The term *weight* is used when inch-pound units are the standard. However, under SI the preferred term is *mass*.

1.7 The values stated in either inch-pound units 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 will result in nonconformance with the specification.

1.8 This specification is expressed in both inch-pound units and SI units. However, unless the order specifies the applicable “M” specification designation (SI units), the material shall be furnished to inch-pound units.

2. Referenced Documents

2.1 ASTM Standards:

A 109/ A 109M Specification for Steel, Strip, Carbon, Cold-Rolled²

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

A 568/ A 568M Specification for Steel, Sheet, Carbon, and High-Strength, Low-Alloy, Hot-Rolled and Cold-Rolled, General Requirements for²

A 680/A 680M Specification for Steel-Hydrocarbon, Strip, Cold-Rolled Hard Untempered Quality²

A 684/A 684M Specification for Steel, Strip, High Carbon, Cold Rolled²

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

A 751 Test Methods, Practices, and Terminology for Chemical Analysis of Steel Products²

A 941 Terminology Relating to Steel, Stainless Steel, Related Alloys, and Ferroalloys⁴

E 3 Methods of Preparation of Metallographic Specimens⁵

E 29 Practice for Using Significant Digits in Test Data to Determine Conformance with Specifications⁶

E 112 Test Methods for Determining Average Grain Size⁵

E 527 Practice for Numbering Metals and Alloys (UNS)⁴

2.2 Federal Standards:

Fed. Std. No. 123 Marking for Shipments (Civil Agencies)⁷

Fed. Std. No. 183 Continuous Identification Marking of

¹ This specification is under the jurisdiction of ASTM Committee A-1 on Steel, Stainless Steel and Related Alloys, and is the direct responsibility of Subcommittee A01.19 on Sheet Steel and Steel Sheets.

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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 01.01.

⁵ Annual Book of ASTM Standards, Vol 03.01.

⁶ Annual Book of ASTM Standards, Vol 14.02.

⁷ Available from Standardization Documents Order Desk, Bldg. 4 Section D, 700 Robbins Ave., Philadelphia, PA 19111-5094, Attn: NPODS