



Designation: A 1018/A 1018M – 01a

Standard Specification for Steel, Sheet and Strip, Heavy-Thickness Coils, Hot-Rolled, Carbon, Structural, High-Strength Low-Alloy, Columbium or Vanadium, and High-Strength Low-Alloy with Improved Formability¹

This standard is issued under the fixed designation A 1018/A 1018M; 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.

1. Scope

1.1 This specification covers hot-rolled, heavy-thickness coils beyond the size limits of specification A 1011.

1.2 The product is available in three designations: Structural Steel; High-Strength Low-Alloy Steel, Columbium or Vanadium; and High-Strength Low-Alloy Steel with Improved Formability.

1.3 This material is available only in coils described as follows:

Product	Size Limits, Coils Only	
	Width, in. [mm]	Thickness, in. [mm]
Strip	Over 8 to 12, incl [Over 200 to 300]	0.230 to 1.000, incl [Over 6.0 to 25]
Sheet	Over 12 to 48, incl [Over 300 to 1200]	0.230 to 1.000, incl [Over 6.0 to 25]
Sheet	Over 48 [Over 1200]	0.180 to 1.000, incl [Over 4.5 to 25]

1.4 Sheet and strip in coils of sizes noted in 1.3 are covered by this specification only with the following provisions:

1.4.1 The material is not to be converted into steel plates for structural or pressure vessel use unless tested in complete accordance with the appropriate sections of Specifications A 6/A 6M (plates provided from coils) or A 20/A 20M (plates produced from coils). Plate produced in this manner is no longer governed by this sheet steel specification and since this material is now plate, the appropriate plate standard must now apply.

1.4.2 This specification is not applicable to the steels covered by Specification A 635/A 635M.

1.4.3 The dimensional tolerances of Specification A 635/A 635M are applicable to material produced to this specification.

1.4.4 The material is to be fed directly from coils into a blanking press, drawing or forming operation, tube mill, rolling

mill, or sheared or slit into blanks for subsequent drawing or forming.

1.4.5 Not all strength levels are available in all thicknesses. The user should consult the producer for appropriate size limitations.

1.5 The values stated in either inch-pound units or SI units [metric] are to be regarded separately 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.

2. Referenced Documents

2.1 ASTM Standards:

A 6/A 6M Specification for General Requirements for Rolled Structural Steel Bars, Plates, Shapes, and Sheet Piling²

A 20/A 20M Specification for General Requirements for Steel Plates for Pressure Vessels²

A 370 Test Methods and Definitions for Mechanical Testing of Steel Products³

A 1011 Specification for Steel, Sheet and Strip, Hot-Rolled, Carbon and Structural, and High-Strength Low-Alloy and High-Strength Low-Alloy with Improved Formability³

A 635/A 635M Specification for Steel, Sheet and Strip, Heavy-Thickness Coils, Carbon, Hot-Rolled³

A 751 Test Methods, Practices, and Terminology for Chemical Analysis of Steel Products³

E 29 Practice for Using Significant Digits in Test Data to Determine Conformance with Specifications⁴

G 101 Guide for Estimating the Atmospheric Corrosion Resistance of Low-Alloy Steels⁵

3. General Requirements for Delivery

3.1 Material furnished under this specification shall conform to the applicable requirements of the current edition of

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 A01.19 on Steel Sheet and Strip.

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² *Annual Book of ASTM Standards*, Vol 01.04.

³ *Annual Book of ASTM Standards*, Vol 01.03.

⁴ *Annual Book of ASTM Standards*, Vol 14.02.

⁵ *Annual Book of ASTM Standards*, Vol 03.02.