Designation: ~~A1010/A1010M – 01 (Reapproved 2009)~~ A1010/A1010M – 13

Standard Specification for Higher-Strength Martensitic Stainless Steel Plate, Sheet, and Strip[1]

This standard is issued under the fixed designation A1010/A1010M; 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~~ Scope*

1.1 This specification covers martensitic stainless steels for various structural, architectural, pressure vessel, and heat-resisting applications. The mechanical properties of these steels are customarily, but not necessarily, developed by a suitable heat treatment generally referred to as tempering.

1.2 Steel products under this specification are available in two grades:

Grade	Yield Strength, min, ksi [MPa]
40 [275]	40 [275]
~~50 [350]~~	~~50 [350]~~
50 [345]	50 [345]

1.3 The maximum thickness of plates is limited only by the capacity of the composition to meet the specified mechanical property requirements; however, current practice normally limits the maximum thickness of plates furnished under this specification to ~~1~~2 in. [~~25~~50 mm].

1.4 The values stated in either SI units or inch-pound units are to be regarded separately as standard. The values stated in each system may not be exact equivalents; therefore, each system shall be used independently of the other. Combining values from the two systems may result in non-conformance with the standard.

2. Referenced Documents

2.1 *ASTM Standards:*[2]

A480/A480M Specification for General Requirements for Flat-Rolled Stainless and Heat-Resisting Steel Plate, Sheet, and Strip

A673/A673M Specification for Sampling Procedure for Impact Testing of Structural Steel

E527 Practice for Numbering Metals and Alloys in the Unified Numbering System (UNS)

2.2 *Other Document:*

SAE J1086 Recommended Practice for Numbering Metals and Alloys[3]

3. General Requirements

3.1 The following requirements for orders for material furnished under this specification shall conform to the applicable requirements of the current edition of Specification A480/A480M.

3.1.1 Terminology,
3.1.2 Ordering Information,
3.1.3 Process,
3.1.4 Heat Analysis,
3.1.5 Product Analysis,
3.1.6 Finish for Sheet,
3.1.7 Finish for Strip,
3.1.8 Finish for Plates,
3.1.9 Test Specimens,

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[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 A01.17 on Flat-Rolled and Wrought Stainless Steel.

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[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.

[3] Available from Society of Automotive Engineers (SAE), 400 Commonwealth Dr., Warrendale, PA 15096-0001, http://www.sae.org.

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