



Standard Specification for Free-Machining Stainless Steel Plate, Sheet, and Strip¹

This standard is issued under the fixed designation A 895; 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-finished or cold-finished plate, sheet, and strip in the more commonly used types of stainless free machining steels designed especially for optimum machinability and for general corrosion and high temperature service. Stainless and heat resisting plate, sheet, and strip other than free machining types are covered in separate specifications.

1.2 The values stated in inch-pound units are to be regarded as the standard.

2. Referenced Documents

2.1 ASTM Standards:

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

A 480/A480M Specification for General Requirements for Flat-Rolled Stainless and Heat-Resisting Steel Plate, Sheet, and Strip²

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

E 527 Practice for Numbering Metals and Alloys³

3. Terminology

3.1 Definitions of Terms Specific to This Standard:

3.1.1 *plate*—material $\frac{3}{16}$ in. (4.8 mm) and over in thickness and over 10 in. (250 mm) in width.

3.1.2 *sheet*—material under $\frac{3}{16}$ in. (5.0 mm) in thickness and 24 in. (600 mm) and over in width.

3.1.3 *strip*—material under $\frac{3}{16}$ in. (5.0 mm) in thickness and under 24 in. (600 mm) in width.

4. Process

4.1 The steel shall be made by one or more of the following processes: electric-arc, electric-induction, or other suitable commercial processes.

4.2 Plate, sheet, and strip may be furnished in one of the conditions listed in Table 1.

TABLE 1 Condition

Type	Condition A (Annealed)	Condition T (Intermediate Temper)	Condition H (Hard Temper)
303	A	...	...
303Se	A	...	...
416	A	T	H
416Se	A	T	H
420F	A	...	...
420FSe	A	T	...
430F	A	...	...
430FSe	A	...	...

5. Ordering Information

5.1 Orders for material under this specification should include the following information:

5.1.1 Quantity (weight or number of pieces),

5.1.2 Type or UNS designation (Table 2),

5.1.3 Form (Plate, Sheet or Strip),

5.1.4 Condition (Table 2),

5.1.5 Finish (9.2),

5.1.6 Dimensions (thickness, width, and length),

5.1.7 Edge, strip only (see Specification A 480/A 480M),

5.1.8 ASTM designation and date of issue,

5.1.9 Additions to specification or special requirements,

5.1.10 Preparation for delivery, and

5.1.11 Marking requirements.

6. Chemical Composition

6.1 The chemical composition shall conform to the requirements specified in Table 2.

6.2 Methods and practices relating to chemical analysis required by this specification shall be in accordance with Test Methods, Practices, and Terminology A 751.

7. Hardness Requirement

7.1 The material shall conform to the hardness requirements as specified in Table 3.

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 A01.17 on Flat Stainless Steel Products.

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² Annual Book of ASTM Standards, Vol 01.03.

³ Annual Book of ASTM Standards, Vol 01.01.