



Standard Specification for Nickel Plate, Sheet, and Strip¹

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This standard has been approved for use by agencies of the Department of Defense.

1. Scope

1.1 This specification² covers rolled nickel (UNS N02200) and low-carbon nickel (UNS N02201)* plate, sheet, and strip.

1.2 The values stated in inch-pound units are to be regarded as the standard. The other values given are for information only.

2. Referenced Documents

2.1 ASTM Standards:

B 160 Specification for Nickel Rod and Bar³

B 880 General Requirements for Chemical Check Analysis of Nickel, Nickel Alloys, and Cobalt Alloys³

E 8 Test Methods for Tension Testing of Metallic Materials⁴

E 10 Test Method for Brinell Hardness of Metallic Materials⁴

E 18 Test Methods for Rockwell Hardness and Rockwell Superficial Hardness of Metallic Materials⁴

E 29 Practice for Using Significant Digits in Test Data to Determine Conformance with Specifications⁵

E 39 Test Methods for Chemical Analysis of Nickel⁶

E 112 Test Methods for Determining the Average Grain Size⁴

E 140 Hardness Conversion Tables for Metals⁴

F 155 Test Method for Temper of Strip and Sheet Metals for Electronic Devices (Spring-Back Method)⁷

3. Terminology

3.1 Definitions of Terms Specific to This Standard:

3.1.1 The terms given in Table 1 shall apply.

TABLE 1 Product Description

Product	Thickness, in. (mm)	Width, in. (mm)
Hot-rolled plate ^A	$\frac{3}{16}$ and over (Table 5 and Table 6)	(Table 8) ^B
Hot-rolled sheet ^A	0.018 to 0.250 (0.46 to 6.4), incl (Table 7)	(Table 10)
Cold-rolled sheet ^C	0.018 to 0.250 (0.46 to 6.4), incl (Table 7)	(Table 10)
Cold-rolled strip ^C	0.005 to 0.250 (0.13 to 6.4), incl (Table 7)	(Table 10)

^A Material $\frac{3}{16}$ to $\frac{1}{4}$ in. (4.8 to 6.4 mm), incl, in thickness may be furnished as sheet or plate provided the material meets the specification requirements for the condition ordered.

^B Hot-rolled plate, in widths 10 in. (254 mm) and under, may be furnished as hot-finished rectangles with sheared or cut edges in accordance with Specification B 160, provided the mechanical property requirements of this specification are met.

^C Material under 48 in. (1219 mm) in width may be furnished as sheet or strip provided the material meets the specification requirements for the condition ordered.

4. Ordering Information

4.1 It is the responsibility of the purchaser to specify all requirements that are necessary for the safe and satisfactory performance of material ordered under this specification. Examples of such requirements include, but are not limited to, the following:

4.1.1 *Alloy*—Name and UNS number. (See Table 2.)

4.1.2 *ASTM designation*, including year of issue.

4.1.3 *Condition* (See 6.1, 6.2, and Appendix X1.)

4.1.4 *Finish* (See Appendix X1.)

4.1.5 *Dimensions*—Thickness, width, and length.

4.1.6 *Quantity*.

4.1.7 *Optional Requirements*:

4.1.7.1 *Sheet and Strip*—Whether to be furnished in coil, in cut straight lengths, or in random straight lengths.

4.1.7.2 *Strip*—Whether to be furnished with commercial slit edge, square edge, or round edge.

4.1.7.3 *Plate*—Whether to be furnished specially flattened (see 7.7.2); also how plate is to be cut (see 7.2.1 and 7.3.2).

4.1.8 *Fabrication Details*—Not mandatory but helpful to the manufacturer.

4.1.8.1 *Welding or Brazing*—Process to be employed.

4.1.8.2 *Plate*—Whether material is to be hot-formed.

¹ This specification is under the jurisdiction of ASTM Committee B-2 on Nonferrous Metals and Alloys and is the direct responsibility of Subcommittee B02.07 on Refined Nickel and Cobalt and Their Alloys.

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² For ASME Boiler and Pressure Vessel Code applications, see related Specification SB-162 in Section II of that Code.

* New designation established in accordance with ASTM E527 and SAE J1086, Practice for Numbering Metals and Alloys (UNS).

³ Annual Book of ASTM Standards, Vol 02.04.

⁴ Annual Book of ASTM Standards, Vol 03.01.

⁵ Annual Book of ASTM Standards, Vol 14.02.

⁶ Annual Book of ASTM Standards, Vol 03.05.

⁷ Discontinued—See 1983 Annual Book of ASTM Standards, Vol 10.04.