



Designation: B 435 – 03

Standard Specification for UNS N06002, UNS N06230, UNS N12160, and UNS R30556 Plate, Sheet, and Strip¹

This standard is issued under the fixed designation B 435; 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 specification² covers alloys UNS N06002, UNS N06230, UNS N12160, and UNS R30556* in the form of rolled plate, sheet, and strip for heat-resisting and general corrosive service.

1.2 The following products are covered under this specification:

1.2.1 *Sheet and Strip*—Hot- or cold-rolled, annealed, and descaled unless solution annealing is performed in an atmosphere yielding a bright finish.

1.2.2 *Plate*—Hot-rolled, solution-annealed, and descaled.

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

1.4 *This standard does not purport to address all of the safety concerns, if any, associated with its use. It is the responsibility of the user of this standard to become familiar with all hazards including those identified in the appropriate Material Safety Data Sheet for this product/material as provided by the manufacturer, to establish appropriate safety and health practices, and determine the applicability of regulatory limitations prior to use.*

2. Referenced Documents

2.1 *ASTM Standards:*

B 906 Specification for General Requirements for Flat-Rolled Nickel and Nickel Alloys Plate, Sheet, and Strip³

3. Terminology

3.1 *Definitions of Terms Specific to This Standard:*

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

Current edition approved June 10, 2003. Published July 2003. Originally approved in 1966. Last previous edition approved in 1998 as B 435 - 98a.

² For ASME Boiler and Pressure Vessel Code applications, see related Specification SB-435 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.

3.1.1 *plate*—material $\frac{3}{16}$ in. (4.76 mm) and over in thickness.

3.1.2 *sheet and strip*—material under $\frac{3}{16}$ in. (4.76 mm) in thickness.

4. General Requirements

4.1 Material furnished under this specification shall conform to the applicable requirements of Specification B 906 unless otherwise provided herein.

5. Ordering Information

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

5.1.1 *Alloy*,

5.1.2 *Dimensions*—Thickness (in decimals of an inch), width, and length (inch or fraction of an inch),

5.1.3 *Certification*—State if certification or a report of test results is required (Specification B 906, Section 21),

5.1.4 *Optional Requirement*—Plate; state how plate is to be cut (Specification B 906, Table A2.3),

5.1.5 *Purchase Inspection*—State which tests or inspections are to be witnessed (Specification B 906, Section 18), and

5.1.6 *Samples for Product (Check) Analysis*—State whether samples should be furnished (Specification B 906, Section 7.2.2).

6. Chemical Composition

6.1 The material shall conform to the requirements as to chemical composition prescribed in Table 1.

6.2 If a product (check) analysis is made by the purchaser, the material shall conform to the requirements specified in Table 1 and Specification B 906.

7. Mechanical Properties and Other Requirements

7.1 *Tensile Properties*—The material shall conform to the room temperature tensile properties prescribed in Table 2.

7.2 *Grain Size for Sheet and Strip:*