ASTM INTERNATIONAL

Designation: B 620 – 03

Standard Specification for
Nickel-Iron-Chromium-Molybdenum Alloy (UNS N08320) Plate, Sheet, and Strip[1]

This standard is issued under the fixed designation B 620; 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[2] covers rolled nickel-iron-chromium-molybdenum alloy (UNS N08320)* plate, sheet, and strip, for use in general corrosive service.

1.2 The following products are covered under this specification:

1.2.1 *Sheet and Strip*—Hot or cold rolled, solution annealed, and descaled unless solution anneal 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.

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 Strip[3]

3. Terminology

3.1 *Definitions of Terms Specific to This Standard:*

3.1.1 *plate*—material ³⁄₁₆ in. (4.76 mm) and over in thickness.

3.1.2 *sheet and strip*—material under 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 the safe and satisfactory performance of material ordered under this specification. Examples of such requirements include, but are not limited to, the following:

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

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

5.1.3 *Optional Requirement:*

5.1.3.1 *Plate*—State how plate is to be cut (Specification B 906, Table A2.3).

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

5.1.5 *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 composition limits specified 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 *Hardness*—The hardness values given in Table 2 are informative only.