



Standard Specification for Seamless UNS N08020, UNS N08026, and UNS N08024 Nickel-Alloy Pipe and Tube¹

This standard is issued under the fixed designation B 729; 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 UNS N08020, UNS N08026, and UNS N08024 seamless, cold-worked or hot finished pipe and tube intended for general corrosive service.

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

1.3 The following safety hazards caveat pertains only to the test methods portion, Section 10, of this specification: *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 establish appropriate safety and health practices and determine the applicability of regulatory limitations prior to use.*

2. Referenced Documents

2.1 ASTM Standards:

B 829 Specification for General Requirements for Nickel and Nickel Alloys Seamless Pipe and Tube²

E 8 Test Methods for Tension Testing of Metallic Materials³

3. General Requirement

3.1 Material furnished under this specification shall conform to the applicable requirements of Specification B 829 unless otherwise provided herein.

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 or UNS number.

4.1.2 ASTM designation and year of issue.

4.1.3 Finish.

4.1.4 Dimensions:

4.1.4.1 *Tube*—Specify outside diameter and the average or minimum wall thickness.

4.1.4.2 *Pipe*—Specify standard pipe size and schedule.

4.1.4.3 *Length*, (cut to length or random).

4.1.5 Quantity (feet or number of pieces).

4.1.6 *Nondestructive Testing* (see 7.2):

4.1.6.1 *Pressure Requirements*—Test pressure if other than required by 10.1.

4.1.6.2 Specify if an electric test is to be performed (see 7.2).

4.1.7 *Ends*—Plain ends cut and deburred will be furnished. If threaded ends or ends beveled for welding are desired, give details.

4.1.8 *Certification*—State if certification is required.

4.1.9 *Samples for Product (Check) Analysis*—State whether samples for product (check) analysis should be furnished (see 6.2).

4.1.10 *Purchaser Inspection*—If the purchaser wishes to witness tests or inspection of material at the place of manufacture, the purchase order must so state, indicating which tests or inspections are to be witnessed.

5. Materials and Manufacture

5.1 The product of UNS N08020 alloy shall be furnished in the stabilized-annealed condition. The product of UNS N08026 alloy shall be furnished in the solution-annealed condition. The product of UNS N08024 alloy shall be furnished in the annealed condition.

NOTE 1—The recommended annealing temperatures all followed by quenching in water or rapidly cooling by other means are as follows: 1800 to 1850°F (982 to 1010°C) for UNS N08020, 2050 to 2200°F (1121 to 1204°C) for UNS N08026, and 1925 to 1975°F (1052 to 1079°C) for UNS N08024.

6. Chemical Composition

6.1 The material shall conform to the composition limits specified in Table 1. One test is required for each lot as defined in Specification B 829.

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.

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² Annual Book of ASTM Standards, Vol 02.04.

³ Annual Book of ASTM Standards, Vol 03.01.

