



Designation: B 705 – 00

Standard Specification for Nickel-Alloy (UNS N06625, N06219 and N08825) Welded Pipe¹

This standard is issued under the fixed designation B 705; 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 welded UNS N06625,* UNS N06219* and UNS N08825* pipe in the annealed condition (temper) for general corrosion applications.

1.2 This specification covers pipe sizes in schedules shown in Table 2 of standard B 775.

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 The following precautionary caveat pertains only to the test methods portion, Section 8, 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 775 Specification for General Requirements for Nickel and Nickel Alloy Welded and Seamless Pipe²

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

3. General Requirement

3.1 Material furnished in accordance with this specification shall conform to the applicable requirements of the current edition of Specification B 775 unless otherwise provided herein.

4. Definition of Terms

4.1 *Class 1*—Welded, cold-worked, annealed, and nondestructively tested in accordance with 9.1.

4.2 *Class 2*—Welded, cold-worked, annealed, and nondestructively tested in accordance with 9.2.

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 Alloy name or UNS number,

5.1.2 ASTM designation,

5.1.3 *Dimensions*:

5.1.3.1 Pipe size,

5.1.3.2 Length (specific or random),

5.1.4 Class (see 3),

5.1.5 Quantity (feet or number of pieces),

5.1.6 *Certification*—State if certification is required,

5.1.7 *Samples for Product (Check) Analysis*—State whether samples for product (check) analysis should be furnished (7.2), and

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

6. Material and Manufacture

6.1 Pipe shall be made from flat-rolled alloy by an automatic welding process with no addition of filler metal. Subsequent to welding and prior to final annealing, the material shall be cold-worked in either the weld metal only or both weld and base metal.

6.2 Pipe shall be furnished with oxide removed. When bright annealing is used, descaling is not necessary.

7. Chemical Composition

7.1 The material shall conform to the composition limits specified in Table 1. One test per lot shall be performed.

7.2 If a product (check) analysis is performed by the purchaser, the material shall conform to the product (check) analysis variations per B 880.

8. Mechanical Properties and Other Requirements

8.1 *Mechanical Properties*—The material shall conform to

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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* New designation established in accordance with Practice E 527 and SAE J 1086, Practice for Numbering Metals and Alloys (UNS).

² *Annual Book of ASTM Standards*, Vol 14.02.

³ *Annual Book of ASTM Standards*, Vol 02.04.