Designation: B 722 – 95 (Reapproved 2000)

Standard Specification for Nickel-Chromium-Molybdenum-Cobalt-Tungsten-Iron-Silicon Alloy (UNS N06333) Seamless Pipe and Tube[1]

This standard is issued under the fixed designation B 722; 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 alloy N06333 in the form of hot-finished and cold-finished seamless pipe and tube intended for heat-resisting applications and general corrosive service. The general requirements for pipe and tube are covered in Specification B 829.

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 *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 Alloy Seamless Pipe and Tube[2]

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 Quantity (feet or number of pieces).

4.1.4 *Dimensions*:

4.1.4.1 Pipe size.

4.1.4.2 Tube dimensions (outside or inside diameter and nominal wall thickness).

4.1.4.3 Length (specific or random).

4.1.5 *Certification*— State if certification is required.

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

4.1.7 *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 witnessed.

5. Mechanical and Other Requirements

5.1 The mechanical properties of the material at room temperature shall conform to those shown in Table 1. The sampling and specimen preparation are covered in Specification B 829.

5.2 Any pipe or tube that shows leaks during hydrostatic testing in accordance with 9.1 shall be rejected, but any leaking areas may be cut out and the pipe retested as above.

6. Dimensions and Permissible Variations

6.1 The requirements of Specification B 829 will apply except for hot-finished pipe and tube dimensional requirements shown in Table 2.

7. Chemical Requirements

7.1 The material shall conform to the requirements as to chemical composition specified in Table 3. One test is required for each lot as defined in Specification B 829.

7.2 If a product (check) analysis is performed by the purchaser, the material shall conform to the product (check) analysis variations in Table 3 of Specification B 829.

8. Number of Tests

8.1 *Chemical Analysis*—One test per lot.

8.2 *Tension Test*— One longitudinal tension test shall be made on a specimen from a pipe or tube representing 1 % of the pipe or tube for each lot.

8.3 *Pressure (Leak) Test*—Each length of pipe or tube shall be subjected to the hydrostatic test.

9. Test Methods

9.1 *Pressure (Leak) Test*—The allowable fiber stress for hydrostatic testing purposes shall be 17 500 psi.

[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.