



## Standard Specification for Nickel-Chromium-Molybdenum-Cobalt-Tungsten-Iron-Silicon Alloy (UNS N06333) Welded Tube<sup>1</sup>

This standard is issued under the fixed designation B 726; 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 ( $\epsilon$ ) indicates an editorial change since the last revision or reapproval.

### 1. Scope

1.1 This specification covers alloy UNS N06333 in the form of welded tube intended for heat-resisting applications and 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 precautionary statement pertains only to the test methods portion, Section 13, 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 718 Specification for Nickel-Chromium-Molybdenum-Cobalt-Tungsten-Iron-Silicon Alloy (UNS N06333) Plate, Sheet, and Strip<sup>2</sup>

B 751 Specification for General Requirements for Nickel and Nickel Alloy Seamless and Welded Tube<sup>2</sup>

### 3. General Requirement

3.1 Material furnished under this specification shall conform to the applicable requirements of Specification B 751 unless otherwise provided herein.

### 4. Ordering Information

4.1 Orders for material to this specification should include information with respect to the following:

4.1.1 Alloy or UNS number,

4.1.2 ASTM designation and date of issue,

4.1.3 Dimensions (outside or inside diameter and nominal-wall thickness),

4.1.4 Length (specific or random),

4.1.5 Quantity (feet or number of pieces),

<sup>1</sup> This specification is under the jurisdiction of ASTM Committee B-2 on Nonferrous Metals and Alloys and is the direct responsibility of Subcommittee B02.07 on Refined Nickel and Cobalt, and Alloys Containing Nickel or Cobalt or Both as Principal Constituents.

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<sup>2</sup> Annual Book of ASTM Standards, Vol 02.04.

4.1.6 *Certification*—State if certification is required,

4.1.7 *Samples for Product (Check) Analysis*—State whether samples should be furnished, and

4.1.8 *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 witnessed.

### 5. Materials and Manufacture

5.1 The tube shall be made from flat-rolled alloy conforming to Specification B 718, by an automatic welding process with no addition of filler metal.

5.2 Tube shall be furnished annealed after welding, with oxide removed. When the final heat treatment is performed in a protective atmosphere, descaling is not necessary.

### 6. Chemical Composition

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

6.2 If a product (check) analysis is performed by the purchaser, the material shall conform to the product (check) analysis variations in Specification B 751.

### 7. Mechanical and Other Requirements

7.1 The mechanical properties of the material at room temperature shall conform to those shown in Tables 2-4.

7.2 One test is required for each lot as defined in Specification B 751.

7.3 *Flattening Test*—A flattening test shall be made on each end of one tube per lot. Superficial ruptures resulting from surface imperfections shall not be cause for rejection.

7.4 *Flange Test*—A flange test shall be made on each end of one tube per lot.

7.5 *Nondestructive Test Requirements:*

7.5.1 Tubes shall be subjected to a pressure test or nondestructive electric test at the manufacturer's option.

7.5.1.1 *Leak Test*—Hydrostatic or pneumatic (air underwater).

7.5.1.2 *Electric Test*—Eddy current or ultrasonic.

### 8. Keywords

8.1 UNS N06333; welded tube