



Designation: B674 – 21

Standard Specification for Nickel-Iron-Chromium-Molybdenum and Iron-Nickel- Chromium-Molybdenum-Copper Welded Tube¹

This standard is issued under the fixed designation B674; 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 N08925,² UNS N08354, and UNS N08926 welded tube for general corrosion applications.

1.2 This specification covers outside diameter and nominal wall tube.

1.2.1 The tube sizes covered by this specification are 1/8 to 5 in. (3.2 to 127 mm) in outside diameter and 0.015 to 0.320 in. (0.38 to 8.13 mm), inclusive, in wall thickness.

1.3 ASTM International has adopted definitions whereby some grades, such as UNS N08904, previously in this specification were recognized as stainless steels, because those grades have iron as the largest element by mass percent. Such grades are under the oversight of ASTM Committee A01 and its subcommittees. The products of N08904 previously covered in this specification are now covered by Specification [A249/A249M](#).

1.4 The values stated in inch-pound units are to be regarded as standard. The values given in parentheses are mathematical conversions to SI units that are provided for information only and are not considered standard.

1.5 *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 Safety Data Sheet (SDS) for this product/material as provided by the manufacturer, to establish appropriate safety, health, and environmental practices, and determine the applicability of regulatory limitations prior to use.*

1.6 *This international standard was developed in accordance with internationally recognized principles on standardization established in the Decision on Principles for the Development of International Standards, Guides and Recom-*

mendations issued by the World Trade Organization Technical Barriers to Trade (TBT) Committee.

2. Referenced Documents

2.1 *ASTM Standards:*³

[A249/A249M](#) Specification for Welded Austenitic Steel Boiler, Superheater, Heat-Exchanger, and Condenser Tubes

[B751](#) Specification for General Requirements for Nickel and Nickel Alloy Welded Tube

[E527](#) Practice for Numbering Metals and Alloys in the Unified Numbering System (UNS)

3. Ordering Information

3.1 Orders for material to this specification should include the following information:

3.1.1 Quantity (feet or number of lengths),

3.1.2 UNS number,

3.1.3 Size (outside diameter, minimum or average wall thickness),

3.1.4 Length (random or specific),

3.1.5 Class, and

3.1.6 ASTM designation.

3.1.7 *Product Analysis*—State if required.

3.1.8 *Certification*—State if a certification or a report of test results is required.

3.1.9 *Purchaser Inspection*—State which tests or inspections are to be witnessed, if any (see [Tables 1 and 2](#)).

4. Materials and Manufacture

4.1 Tube shall be made from flat-rolled alloy by an automatic welding process with no addition or 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.

NOTE 1—The recommended heat treatment shall consist of heating to a temperature of 1975 to 2150°F (1080 to 1180°C) for UNS N08354 or 2010 to 2100°F (1100 to 1150°C) for UNS N08925 and UNS N08926,

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 New designation established in accordance with Practice [E527](#) and SAE J1086, Practice for Numbering Metals and Alloys (UNS).

³ For referenced ASTM standards, visit the ASTM website, www.astm.org, or contact ASTM Customer Service at service@astm.org. For *Annual Book of ASTM Standards* volume information, refer to the standard's Document Summary page on the ASTM website.

*A Summary of Changes section appears at the end of this standard