



Designation: B829 – 04a (Reapproved 2017)

Standard Specification for General Requirements for Nickel and Nickel Alloys Seamless Pipe and Tube¹

This standard is issued under the fixed designation B829; 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 contains various requirements that, with the exception of Sections 5 and 10, are mandatory requirements to the following ASTM nickel and nickel alloy, seamless pipe and tube specifications:

Title of Specification	ASTM Designation ²
Nickel Seamless Pipe and Tube	B161
Seamless Nickel and Nickel Alloy, Condenser and Heat Exchanger Tubes	B163
Nickel-Copper Alloy (UNS N04400) Seamless Pipe and Tube	B165
Nickel-Chromium-Iron Alloys (UNS N06600, N06601, and N06690) Seamless Pipe and Tube	B167
Nickel-Iron-Chromium Alloy Seamless Pipe and Tube	B407
Nickel-Iron-Chromium-Molybdenum-Copper Alloy (UNS N08825 and N08221) Seamless Pipe and Tube	B423
Nickel-Chromium-Molybdenum-Columbium Alloys (UNS N06625) Pipe and Tube	B444
Nickel-Chromium-Iron-Columbium-Molybdenum-Tungsten Alloy (UNS N06102) Seamless Pipe and Tube	B445
Nickel-Iron-Chromium-Silicon Alloys (UNS N08330 and UNS N08332) Seamless Pipe	B535
Copper-Beryllium Alloy Forgings and Extrusion	B570
Seamless Nickel and Nickel-Cobalt Alloy Pipe and Tube	B622
UNS N08028 Seamless Tubes	B668
UNS N08904, UNS N08925 and UNS N08926 Seamless Pipe and Tube	B677
Iron-Nickel-Chromium-Molybdenum Alloys (UNS N08366 and UNS N08367) Seamless Pipe and Tube	B690
Ni-Cr-Mo-Co-W-Fe-Si Alloy (UNS N06333) Seamless Pipe and Tube	B722
Seamless UNS N08020, UNS N08026, and UNS N08024 Nickel-Alloy Pipe and Tube	B729

1.2 One or more of the test requirements of Section 5 apply only if specifically stated in the product specification or in the purchase order.

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 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.

1.3 In case of conflict between a requirement of the product specification and a requirement of this general specification, only the requirement of the product specification needs to be satisfied.

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 The following safety hazards caveat pertains only to the test requirements portion, Section 5, 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 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 and health 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 Recommendations issued by the World Trade Organization Technical Barriers to Trade (TBT) Committee.

2. Referenced Documents

2.1 ASTM Standards:²

- B880 Specification for General Requirements for Chemical Check Analysis Limits for Nickel, Nickel Alloys and Cobalt Alloys
- E8/E8M Test Methods for Tension Testing of Metallic Materials
- E18 Test Methods for Rockwell Hardness of Metallic Materials
- E29 Practice for Using Significant Digits in Test Data to Determine Conformance with Specifications
- E39 Methods for Chemical Analysis of Nickel (Withdrawn 1995)³
- E76 Test Methods for Chemical Analysis of Nickel-Copper Alloys (Withdrawn 2003)³