Designation: B899 – 16

Standard Terminology Relating to Non-ferrous Metals and Alloys[1]

This standard is issued under the fixed designation B899; 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 To promote precise understanding and interpretation of standards, reports, and other technical writings promulgated by Committee B02.

1.2 To standardize the terminology used in these documents.

1.3 To explain the meanings of technical terms used within these documents for those not conversant with them.

2. Referenced Documents

2.1 *ASTM Standards:*[2]

B6 Specification for Zinc
B29 Specification for Refined Lead
B32 Specification for Solder Metal
B39 Specification for Nickel
B69 Specification for Rolled Zinc
B86 Specification for Zinc and Zinc-Aluminum (ZA) Alloy Foundry and Die Castings
B160 Specification for Nickel Rod and Bar
B161 Specification for Nickel Seamless Pipe and Tube
B163 Specification for Seamless Nickel and Nickel Alloy Condenser and Heat-Exchanger Tubes
B164 Specification for Nickel-Copper Alloy Rod, Bar, and Wire
B165 Specification for Nickel-Copper Alloy (UNS N04400) Seamless Pipe and Tube
B166 Specification for Nickel-Chromium-Iron Alloys (UNS N06600, N06601, N06603, N06690, N06693, N06025, N06045, and N06696), Nickel-Chromium-Cobalt-Molybdenum Alloy (UNS N06617), and Nickel-Iron-Chromium-Tungsten Alloy (UNS N06674) Rod, Bar, and Wire
B167 Specification for Nickel-Chromium-Iron Alloys (UNS N06600, N06601, N06603, N06690, N06693, N06025, N06045, and N06696), Nickel-Chromium-Cobalt-Molybdenum Alloy (UNS N06617), and Nickel-Iron-Chromium-Tungsten Alloy (UNS N06674) Seamless Pipe and Tube
B240 Specification for Zinc and Zinc-Aluminum (ZA) Alloys in Ingot Form for Foundry and Die Castings
B327 Specification for Master Alloys Used in Making Zinc Die Casting Alloys
B333 Specification for Nickel-Molybdenum Alloy Plate, Sheet, and Strip
B339 Specification for Pig Tin
B407 Specification for Nickel-Iron-Chromium Alloy Seamless Pipe and Tube
B408 Specification for Nickel-Iron-Chromium Alloy Rod and Bar
B418 Specification for Cast and Wrought Galvanic Zinc Anodes
B423 Specification for Nickel-Iron-Chromium-Molybdenum-Copper Alloy (UNS N08825, N08221, and N06845) Seamless Pipe and Tube
B425 Specification for Ni-Fe-Cr-Mo-Cu Alloy (UNS N08825, UNS N08221, and UNS N06845) Rod and Bar
B434 Specification for Nickel-Molybdenum-Chromium-Iron Alloys (UNS N10003, UNS N10242) Plate, Sheet, and Strip
B435 Specification for UNS N06002, UNS N06230, UNS N12160, and UNS R30556 Plate, Sheet, and Strip
B444 Specification for Nickel-Chromium-Molybdenum-Columbium Alloys (UNS N06625 and UNS N06852) and Nickel-Chromium-Molybdenum-Silicon Alloy (UNS N06219) Pipe and Tube
B445 Specification for Nickel-Chromium-Iron-Columbium-Molybdenum-Tungsten Alloy (UNS N06102)* Seamless Pipe and Tube (Withdrawn 1995)[3]
B446 Specification for Nickel-Chromium-Molybdenum-Columbium Alloy (UNS N06625), Nickel-Chromium-Molybdenum-Silicon Alloy (UNS N06219), and Nickel-Chromium-Molybdenum-Tungsten Alloy (UNS N06650) Rod and Bar
B463 Specification for UNS N08020 Alloy Plate, Sheet, and Strip

[1] This terminology is under the jurisdiction of ASTM Committee B02 on Nonferrous Metals and Alloys and is the direct responsibility of Subcommittee B02.91 on Editorial and Terminology.

Current edition approved Oct. 1, 2016. Published November 2016. Originally approved in 1999. Last previous edition approved in 2015 as B899 – 15. DOI: 10.1520/B0899-16.

[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.

[3] The last approved version of this historical standard is referenced on www.astm.org.

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

B471 Specification for UNS N08020, UNS N08026, and UNS N08024 Nickel Alloy Spring Wire (Withdrawn 1999)[3]
B473 Specification for UNS N08020, UNS N08024, and UNS N08026 Nickel Alloy Bar and Wire
B475 Specification for UNS N08020, UNS N08024, and UNS N08026 Nickel Alloy Round Weaving Wire
B511 Specification for Nickel-Iron-Chromium-Silicon Alloy Bars and Shapes
B512 Specification for Nickel-Chromium-Silicon Alloy (UNS N08330) Billets and Bars
B518 Specification for Nickel-Chromium-Iron-Columbium-Molybdenum-Tungsten Alloy (UNS N06102) Rod and Bar
B522 Specification for Gold-Silver-Platinum Electrical Contact Alloy
B535 Specification for Nickel-Iron-Chromium-Silicon Alloys (UNS N08330 and N08332) Seamless Pipe and Tube
B536 Specification for Nickel-Iron-Chromium-Silicon Alloys (UNS N08330 and N08332) Plate, Sheet, and Strip
B540 Specification for Palladium Electrical Contact Alloy
B541 Specification for Gold Electrical Contact Alloy
B575 Specification for Low-Carbon Nickel-Chromium-Molybdenum, Low-Carbon Nickel-Chromium-Molybdenum-Copper, Low-Carbon Nickel-Chromium-Molybdenum-Tantalum, Low-Carbon Nickel-Chromium-Molybdenum-Tungsten, and Low-Carbon Nickel-Molybdenum-Chromium Alloy Plate, Sheet, and Strip
B582 Specification for Nickel-Chromium-Iron-Molybdenum-Copper Alloy Plate, Sheet, and Strip
B599 Specification for Nickel-Iron-Chromium-Molybdenum-Columbium Stabilized Alloy (UNS N08700) Plate, Sheet, and Strip
B620 Specification for Nickel-Iron-Chromium-Molybdenum Alloy (UNS N08320) Plate, Sheet, and Strip
B622 Specification for Seamless Nickel and Nickel-Cobalt Alloy Pipe and Tube
B625 Specification for UNS N08925, UNS N08031, UNS N08932, UNS N08926, UNS N08354, UNS N08830, and UNS R20033 Plate, Sheet, and Strip
B637 Specification for Precipitation-Hardening and Cold Worked Nickel Alloy Bars, Forgings, and Forging Stock for Moderate or High Temperature Service
B639 Specification for Precipitation Hardening Cobalt-Containing Alloys (UNS R30155 and UNS R30816) Rod, Bar, Forgings, and Forging Stock for High-Temperature Service
B649 Specification for Ni-Fe-Cr-Mo-Cu-N Low-Carbon Alloys (UNS N08925, UNS N08031, UNS N08354, and UNS N08926), and Cr-Ni-Fe-N Low-Carbon Alloy (UNS R20033) Bar and Wire, and Ni-Cr-Fe-Mo-N Alloy (UNS N08936) Wire
B667 Practice for Construction and Use of a Probe for Measuring Electrical Contact Resistance
B672 Specification for Nickel-Iron-Chromium-Molybdenum-Columbium Stabilized Alloy (UNS N08700) Bar and Wire
B677 Specification for UNS N08925, UNS N08354, and UNS N08926 Seamless Pipe and Tube
B688 Specification for Chromium-Nickel-Molybdenum-Iron (UNS N08366 and UNS N08367) Plate, Sheet, and Strip
B690 Specification for Iron-Nickel-Chromium-Molybdenum Alloys (UNS N08366 and UNS N08367) Seamless Pipe and Tube
B691 Specification for Iron-Nickel-Chromium-Molybdenum Alloys (UNS N08366 and UNS N08367) Rod, Bar, and Wire
B709 Specification for Iron-Nickel-Chromium-Molybdenum Alloy (UNS N08028) Plate, Sheet, and Strip
B710 Specification for Nickel-Iron-Chromium-Silicon Alloy Welded Pipe
B718 Specification for Nickel-Chromium-Molybdenum-Cobalt-Tungsten-Iron-Silicon Alloy (UNS N06333) Plate, Sheet, and Strip
B719 Specification for Nickel-Chromium-Molybdenum-Cobalt-Tungsten-Iron-Silicon Alloy (UNS N06333) Bar
B722 Specification for Nickel-Chromium-Molybdenum-Cobalt-Tungsten-Iron-Silicon Alloy (UNS N06333) Seamless Pipe and Tube
B723 Specification for Nickel-Chromium-Molybdenum-Cobalt-Tungsten-Iron-Silicon Alloy (UNS N06333) Welded Pipe
B726 Specification for Nickel-Chromium-Molybdenum-Cobalt-Tungsten-Iron-Silicon Alloy (UNS N06333) Welded Tube
B729 Specification for Seamless UNS N08020, UNS N08026, and UNS N08024 Nickel-Alloy Pipe and Tube
B739 Specification for Nickel-Iron-Chromium-Silicon Alloy Welded Tube
B749 Specification for Lead and Lead Alloy Strip, Sheet, and Plate Products
B750 Specification for GALFAN
B751 Specification for General Requirements for Nickel and Nickel Alloy Welded Tube
B756 Specification for Nickel-Chromium-Molybdenum-Tungsten Alloy(UNS N06110) Rod and Bar
B759 Specification for Nickel-Chromium-Molybdenum-Tungsten Alloys (UNS N06110) Pipe and Tube
B775 Specification for General Requirements for Nickel and Nickel Alloy Welded Pipe
B791 Specification for Zinc-Aluminum (ZA) Alloy Foundry and Die Castings (Withdrawn 1999)[3]
B792 Specification for Zinc Alloys in Ingot Form for Slush Casting
B805 Specification for Precipitation Hardening Nickel Alloys Bar and Wire
B814 Specification for Nickel-Chromium-Iron-Molybdenum-Tungsten Alloy(UNS N06920) Plate, Sheet, and Strip
B818 Specification for Cobalt-Chromium-Nickel-Molybdenum-Tungsten Alloy (UNS R31233) Plate, Sheet and Strip
B834 Specification for Pressure Consolidated Powder Metallurgy Iron-Nickel-Chromium-Molybdenum (UNS

N08367), Nickel-Chromium-Molybdenum-Columbium (Nb) (UNS N06625), Nickel-Chromium-Iron Alloys (UNS N06600 and N06690), and Nickel-Chromium-Iron-Columbium-Molybdenum (UNS N07718) A
B860 Specification for Zinc Master Alloys for Use in Hot Dip Galvanizing
B892 Specification for ACuZinc5
B894 Specification for ACuZinc5
B897 Specification for Configuration of Zinc and Zinc Alloy Jumbo, Block, Half Block, and Slab Ingot

3. Significance and Use

3.1 The terms defined in this document are generic in respect to the standards under the jurisdiction of Committee B02 on Nonferrous Metals and Alloys. The same terms may have different definitions in other ASTM technical committees.

3.2 Some definitions may differ within the committee because of limitations on items such as weights or dimensions. In such cases the terms will be more precisely defined in the *Terminology* section of the standards in which these terms are used.

4. Index of Terms

4.1 *Alphabetical Listing of Terms*

5. Terminology

5.1 *Terms and Their Definitions*

average diameter, *n*—the average of the maximum and minimum outside the diameters, as determined at any one section of the pipe or tube. **B160, B161, B163, B165, B167, B407,B423, B444, B445, B535, B622, B677, B690, B710, B722, B723, B726, B729, B739, B751, B759, B775**

bar, *n*—an elongated, forged or rolled metal product with uniform strength, length and section (such as rectangular, square, round, oval or hexagonal). **B327, B518**

NOTE 1—In the following standards the term "bar" has a similar definition, but with greater and more specific detail. **B160, B164, B166, B408, B425, B446, B473, B511, B512, B637, B639, B649, B672, B691, B719, B756, B805**

billet, *n*—a formed shape that may be further worked, or a solid, semifinished, round, or rectangular product that has been hot-worked by forging, rolling, or extrusion.

brightener bar, *n*—brightener bar is a zinc alloy containing aluminum which is added to the galvanizing bath to adjust the aluminum content of the bath to: suppress the formation of iron-zinc alloy layers, increase the brightness and ductility of the galvanized coating, and improve the drainage of zinc from the work as it exits the bath; also called brightener. **B860**

can, *n*—the container used to encapsulate the powder during the pressure consolidation process; it is removed from the final part. **B834**

cathodic protection, *n*—protection of a metal from corrosion by making it a cathode through the galvanic sacrifice of a less noble metal or through an impressed electric current. **B418**

cobalt alloy, *n*—a material that conforms to a specification that contains cobalt as the principal component.

DISCUSSION—The cobalt content requirement is not always stated in the specification and is not always determined by chemical analysis. If not specified, it may be taken to be 100 % minus the sum of the mean values permitted by the specification for all other elements having a specified range or a specified maximum. For conformance purposes, the mean value for cobalt, whether if specified, or the calculated value for cobalt, is compared on an individual basis to the mean values permitted by the specification for each of the other elements having a specified range or a specified maximum. If an element other than cobalt is not specified, but is listed as remainder or balance, then, for conformance purposes the mean value for cobalt is compared to the calculated value for that other element.

coiled sheet, *n*—sheet in coils with slit edges. **B69**

compact, *n*—the consolidated powder from one can; it may be used to make one or more parts. **B834**

contact resistance, *n*—the resistance to current flow between two touching bodies, consisting of constriction resistance and film resistance. **B667**

contact resistance probe, *n*—an apparatus for determining electrical contact resistance characteristics of a metal surface.

DISCUSSION—Probe, in this instance, should be distinguished from the classical tool whose function it is to touch or move an object. **B667**

die casting, *n*—a casting process in which molten metal is injected under high velocity and pressure into a metal die and solidified; also, a product produced by such a process. Alternately known as pressure die casting. **B6, B240, B892, B894**

ellipsis, *n*—in a tabular entry, three periods (...) that indicate that there is no requirement.

fill pin, *n*—the part of the compact in the spout used to fill the can; it is usually integral to the part produced. **B834**

fineness, *n*—a measure of the purity of precious metals expressed in parts per thousand.

flat sheet, *n*—sheet with sheared, silt, or sawed edges that has been flattened or leveled. **B69**

foundry casting, *n*—a casting process wherein a molten metal is poured by gravity into the cavity of a mold and solidified; also, a product of such a process. **B86**

galvanic anode, *n*—a metal electrode that sacrificially corrodes when coupled to a more noble metal in a conducting medium, thereby supplying a protective electric current to the more noble electrode. **B418**

graphite permanent mold casting, *n*—a metal object produced by introducing molten metal by gravity or low pressure into a graphite mold and allowing it to solidify. **B86**

hardener, *n*—an aluminum-base master alloy added to Special High Grade Zinc (SHG) to produce a zinc alloy for die casting. **B327**

heat, *n*—refer to melt.

ingot, *n*—a casting of simple shape suitable for hot-working or remelting.

liquidus, *n*—the lowest temperature at which an alloy under equilibrium conditions begins to freeze on cooling or is completely melted on heating.

lot, *n*—a quantity of metal made under conditions that, for sampling purposes, are considered uniform. **B6, B32, B240, B418, B749**

lot number, *n*—a unique alphanumeric designation for a lot that is traceable to manufacturing records. **B32**

melt, *n*—all the metal that, while molten, was held at the same time in the same holding vessel.

nickel, *n*—a refined nickel primarily produced from ore or matte or similar raw material containing a minimum of 99.80 percent nickel by weight. **B39**

nickel alloy, *n*—a material that contains nickel as the principal component.

DISCUSSION—Beginning in 1992, only alloys containing nickel as the principal constituent have been categorized as a nickel alloy for the purpose of new coverage in B02 specifications. Prior to 1992, nickel alloys were defined as alloys nominally containing less than 50 % iron with nickel as the highest nonferrous element present. The nickel content requirement is not always stated in the specification and is not always determined by chemical analysis. If not specified, it may be taken to be 100 % minus the sum of the mean values permitted by the specification for all other elements having a specified range or a specified maximum. For conformance purposes, the mean value for nickel, whether specified or calculated, is compared on an individual basis to the mean values permitted by the specification for each of the other elements having a specified range or a specified maximum. If an element other than nickel is not specified, but is listed as remainder or balance, then, for conformance purposes the mean value for nickel is compared to the calculated value for that other element.

nickel-base alloy and **nickel-based alloy—**these terms are not used in ASTM standards under the jurisdiction of Committee B02 and are not preferred. See **nickel alloy**.

nominal wall, *n*—specified wall thickness with a published plus and minus tolerance from the specified thickness at any point. **B535, B710, B722, B723, B726, B739, B751, B775**

nonferrous material, *n*—metals and alloys that do not contain iron as the principal component.

DISCUSSION—The iron content is not always stated in the specification and is not always determined by chemical analysis. The iron content may be taken to be 100 % minus the sum of the mean values permitted by the specification for all other elements having a specified range or a specified maximum. For conformance purposes, the mean value for iron, whether specified or calculated, is compared on an individual basis to the mean values permitted by the specification for each of the other elements having a specified range or a specified maximum. If an element other than iron is not specified, but is listed as remainder or balance, then, for conformance purposes the mean value for iron is compared to the calculated value for that other element.

part, *n*—a single item coming from a compact, either prior to or after machining. **B834**

permanent mold casting, *n*—a metal object produced by introducing molten metal by gravity or low pressure into a mold constructed of durable material, usually iron or steel, and allowing it to solidify. See also graphite permanent mold casting. **B86, B792**

pig, *n*—an oblong or square mass of metal that has been cast while still molten into a mold that gives the metal its particular shape; most commonly used for lead and tin in weights that can be handled manually. **B29, B339**

pipe, *n*—a tubular metal product, cast or wrought, of dimensions that conform to those referred to commercially as standard pipe sizes. **B161, B165, B167, B407, B423, B444, B445, B535, B622, B677, B690, B710, B722, B723, B729, B759, B775**

plate, *n*—a flat-rolled metal product of same minimum thickness and width arbitrarily dependent on the type of metal. **B69, B333, B434, B435, B463, B536, B575, B582, B599, B620, B625, B709, B718, B814, B818**

platinum group metal, *n*—these metals are palladium, platinum, rhodium, iridium, osmium, and ruthenium. **B522, B540, B541**

powder, *n*—particles of a solid characterized by small size, nominally within the range of from 0.1 to 1000 μm.

powder blend, *n*—a homogeneous mixture of powder from one or more heats; it is limited to the amount that can be mixed in the same blender at one time. **B834**

precious metals, *n*—the eight noble metals: gold, silver, palladium, platinum, rhodium, iridium, osmium, and ruthenium.

precipitation hardening, *n*—hardening caused by the precipitation of a constituent from a supersaturated solid solution.

pressure die-casting, *n*—Same as die casting. **B86, B791**

producer, *n*—the primary manufacturer of the material. **B32**

ribbon anode, *n*—a long, continuous sacrificial anode shape, with a diamond, square, rectangular, oval, or other cross-section, most commonly made of zinc, magnesium or aluminum, having a core wire normally made of steel, that is, usually supplied in coils or reels of 100 to 3600 feet depending upon size and cross-section. **B69, B418**

rod, *n*—wrought material of round, solid straight lengths. **B408, B518, B691**

NOTE 2—In the following standards the term "rod" has a similar definition, but is worded differently. **B160, B164, B166, B425, B446, B637, B639, B756**

rough part, *n*—the part prior to final machining. **B834**

saline electrolyte, *n*—a solution customarily consisting of the chlorides of the alkali metals. **B418**

sand casting, *n*—a casting process wherein molten metal is poured by gravity into the cavity of a sand mold and solidified; also, a product of such a process. **B791**

seamless pipe, *n*—a round, hollow product made with a continuous periphery in all stages of manufacture and produced to the particular dimensions commercially known as standard pipe sizes. **B423, B444, B775**

semi-permanent mold casting, *n*—mold casting that is made with an expendable core such as sand. **B791**

shapes, *n*—materials of solid section in such forms as angles, channels, tees, I-beams, and four-fluted bars. **B511**

sheet, *n*—a flat-rolled metal product of some maximum thickness and minimum width arbitrarily dependent on the type of metal; it is thinner than plate. **B69, B463, B599, B625, B688, B709, B718, B749**

shot, *n*—small spherically shaped particles of metal. **B327**

solidus, *n*—the highest temperature at which under equilibrium conditions an alloy begins to melt on heating or is completely solid on cooling.

sponge, *n*—a form of metal characterized by a porous condition that is the result of decomposition or reduction of a compound without fusion.

spring wire, *n*—round wire intended especially for the manufacture of springs. **B471**

strip, *n*—a flat-rolled metal product of some maximum thickness and width arbitrarily dependent on the type of metal, it is narrower than sheet. **B463, B536, B599, B625, B688, B709, B718, B749**

test report, *n*—a document that presents the applicable qualitative or quantitative results obtained by applying one or more given test methods.

DISCUSSION—A single document, containing test report information and certificate of compliance information, may be used.

thin-wall tube, *n*—tube with specified wall thickness 3 % or less of the specified outside diameter. **B751**

tube, *n*—a hollow product of round or any other cross section having a continuous periphery of uniform shape. **B423, B444, B445, B535, B677, B722, B729**

NOTE 3—The following standards use the same definition for "tube," less the words "of uniform shape." **B161, B163, B165, B167, B407, B622, B690, B759**

weaving wire, *n*—round wire intended especially for weaving. **B475**

welded pipe, *n*—a round hollow product made by forming flat stock and joining the single longitudinal seam by welding; it is produced to the particular dimensions commercially known as standard pipe sizes. **B775**

wire, *n*—a thin, flexible continuous length of metal, usually of uniform, round cross section. **B473, B649, B672, B691, B805**

6. Index of Terms Specific to a Standard

6.1 *Terms and Their Corresponding Standard(s)*

bars — B473, B649, B672
billet — B512
High Grade — B6
jumbo ingot — B897
mischmetal — B750
Prime Western — B6
Special High Grade — B6
ribbon anode — B69, B418
wire — B164, B166

7. Abbreviations

7.1 *Abbreviations*

CGG—continuous galvanizing grade zinc
HG—High Grade Zinc
MM—mischmetal
PW—Prime Western Zinc
SHG—Special High Grade Zinc
UNS—Unified Numbering System
V–12—zinc-12 % aluminum master alloy used to produce die casting alloy #3
ZA—zinc-aluminum
ZA–8—zinc- 8 % aluminum- 1 % copper die casting alloy
ZA–12—zinc- 11 % aluminum- 1 % copper die casting and foundry alloy
ZA–27—zinc- 27 % aluminum- 2 % copper die casting and foundry alloy
Zn-5Al-MM—zinc- 5 % aluminum-mischmetal galvanizing alloy
85 Zn/15 aluminum—85 % zinc- 15 % aluminum alloy
95/5 Zn/Al—95 % zinc- 5 % aluminum alloy
90/10 Zn/Al—90 % zinc- 10 % aluminum alloy
90/10 Al/Sb—90 % zinc- 10 % antimony alloy

8. Index of Keywords Used in B02 Standards

8.1 *Index of Keywords*

alloys
aluminum-base master alloy
aluminum alloy hardener
analysis
antimony
babbit metal
bar
bearing alloys
billet
bismuth
blanking dies
block
brightener
cake
casting
casting alloys
cathodic protection
certification
CGG alloy
chemical-copper lead
chemical analysis
chemical composition
chemical requirements
cobalt alloys
cold worked
color
color code
compact
continuous galvanizing grade zinc
definitions
die casting alloys
die castings
fittings
flux
flux cored solder
forgings
forming dies
foundry alloys
foundry castings
freezing point
fuses
fusible alloys
fusion-welded pipe
fusion welded
galvanic anodes
grades
grain size
gravity casting
high-temperature alloy
high grade zinc
hog
hot-dip coating alloy
hot chamber die castings
hot finished
indium
ingot
iron-nickel-chromium-molybdenum
joining
jumbo ingot
lead
lead-silver alloys
lead-tin-antimony alloys
lead-tin-silver alloys
lead-tin alloys
lead alloys
liquidus
lot
low-bismuth low-silver lead
low melting point alloys
master alloy
mechanical properties
N02200
N02201
N04400
N06002
N06007
N06022
N06025
N06030

N06045
N06058
N06059
N06060
N06110
N06200
N06210
N06230
N06250
N06255
N06333
N06455
N06600
N06603
N06617
N06625
N06686
N06690
N06920
N06975
N06985
N07001
N07080
N07252
N07500
N07718
N07750
N07752
N08020
N08024
N08026
N08028
N08031
N08120
N08135
N08221
N08320
N08330
N08332
N08367
N08535
N08700
N08800
N08801
N08810
N08811
N08821
N08825
N08904
N08925
N08926
N08932
N09908
N10001
N10003
N10276
N10624
N10629
N10665
N10675
N12160
N60975
nickel-chromium-molybdenum-columbium
nickel-chromium-molybdenum-tungsten
nickel-iron-chromium-molybdenum-columbium
nickel-iron-chromium-molybdenum-copper-columbium
nickel alloy forgings
nickel alloys
nickel alloy
nickel
nonferrous material
nonferrous metals
permanent mold castings
pewter
physical properties
pig
pipe
plate
powder
powder parts
pressure consolidated powder metallurgy
pressure die castings
prime western zinc
product analysis
pure lead
R20033
R30556
R31233
refined
ribbon
ribbon anode
rod
rolled sheet
rolled zinc
sampling
sand castings
seamless pipe
seamless tube
sheet
sheet metal dies
silver
slush casting
solder alloy
solder metal
solder uses
solidus
special high grade zinc
specimen preparation
strip
tension test
terminology
tin
tin-antimony-copper alloys
tin-antimony alloys
tin-cadmium-zinc alloys
tin-copper alloys

tin-silver alloys
tin-zinc alloy
tin alloys
V-12
welded pipe
welded tube
wire
ZA alloys
zinc
zinc- 5 % aluminum-mischmetal alloy
zinc-aluminum-copper alloys
zinc-aluminum alloys
zinc-base master alloy
zinc-cadmium alloys
zinc-copper-aluminum alloys
zinc-tin-copper alloys
zinc alloy hardener
zinc alloy ingots
zinc alloys
zinc anodes
zinc die casting alloy
zinc master alloys
zinc metal
zinc plate
zinc sheet

9. Keywords

9.1 definitions; nonferrous material; nonferrous metals; terminology

SUMMARY OF CHANGES

Committee B02 has identified the location of selected changes to this standard since the last issue (B899–15) that may impact the use of this standard. (Approved October 1, 2016.)

(1) A definition for term ribbon anode was added (concurrently removed from Specifications B69 and B418).

Committee B02 has identified the location of selected changes to this standard since the last issue (B899–14) that may impact the use of this standard. (Approved October 1, 2015.)

(1) Added the term and definition of ellipsis based on the Form and Style for ASTM Standards.