



Standard Specification for General Requirements for Wrought Precious Metal Electrical Contact Materials¹

This standard is issued under the fixed designation B 476; 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.

This standard has been approved for use by agencies of the Department of Defense. Consult the DoD Index of Specifications and Standards for the specific year of issue which has been adopted by the Department of Defense.

^{ε1} NOTE—Section 17 was added editorially in June 1995.

1. Scope

1.1 This specification covers general requirements common to wrought precious metal electrical contact alloy products in the form of sheet, strip, wire, and rod. Unless otherwise specified in the purchase order or in an individual specification, these general requirements shall apply to wrought electrical contact materials where indicated in the applicable product specifications issued by ASTM.

1.2 In case of conflict, the requirements on the purchase order, the individual specification, and this general specification shall prevail in the sequence named.

1.3 The values stated in inch-pound units are to be regarded as the standard. The metric equivalents of inch-pound units may be approximate.

1.4 *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.*

1.5 It is the responsibility of the user to become familiar with all hazards including those identified in the appropriate Material Safety Data Sheet for this product/material as provided by the manufacturer.

2. Referenced Documents

The following documents of the issue in effect, on the date of material purchase, form a part of this specification to the extent referenced herein:

2.1 ASTM Standards:

B 63 Test Method for Resistivity of Metallically Conducting Resistance and Contact Materials²

B 277 Test Method for Hardness of Electrical Contact Materials²

¹ This specification is under the jurisdiction of ASTM Committee B-4 on Metallic Materials for Thermostats and for Electrical Resistance, Heating, and Contacts and is the direct responsibility of Subcommittee B04.02 on Electrical Contact Materials.

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² Annual Book of ASTM Standards, Vol 03.04.

E 3 Methods of Preparation of Metallographic Specimens³

E 8 Test Methods of Tension Testing of Metallic Materials³

E 29 Practice for Using Significant Digits in Test Data to Determine Conformance with Specifications⁴

E 55 Practice for Sampling Wrought Nonferrous Metals and Alloys for Determination of Chemical Composition⁵

E 112 Test Methods for Determining Average Grain Size³

3. Terminology

3.1 Definition:

3.1.1 *lot*—the quantity of material of the same type, size, and finish produced at one time from the same cast or heat, and heat treated in the same heat-treatment cycle.

4. Ordering Information

4.1 Orders for material to this specification shall include the following information:

4.1.1 Designation and revision date of this specification.

4.1.1.1 If a revision date is not designated, the latest revision should be used.

4.1.2 Designation and revision date of the applicable product specification.

4.1.2.1 If a revision date is not designated, the latest revision of the product specification should be used.

4.1.3 Description of material form,

4.1.4 Dimensions of the material,

4.1.5 Total quantity of each size,

4.1.6 Temper of the material (annealed, cold worked, etc.),

4.1.7 Temper test (hardness or tensile) (Section 10),

4.1.8 Special requirements (if any), and

4.1.9 Certification (Section 14).

4.2 Specify the following, if required:

4.2.1 Certificate of compliance of physical and chemical requirement.

4.2.2 *Test Data*—Specify tests and analyses to be performed and reported.

4.2.3 Special packaging, if required.

³ Annual Book of ASTM Standards, Vol 03.01.

⁴ Annual Book of ASTM Standards, Vol 14.02.

⁵ Annual Book of ASTM Standards, Vol 03.05.