



AEROSPACE MATERIAL SPECIFICATION

AMS4530™**REV. J**

Issued 1946-01
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Superseding AMS4530H

Copper-Beryllium Alloy Sheet, Strip, and Plate
98Cu - 1.9Be
Solution Heat Treated (TB00)
(Composition similar to UNS C17200)

RATIONALE

AMS4530J corrects an error in temperature conversion (3.3.4).

1. SCOPE

1.1 Form

This specification covers one type of copper-beryllium alloy in the form of sheet, strip, and plate.

1.2 Application

This product has been used typically for parts requiring high strength with good electrical conductivity or lack of magnetic susceptibility, but usage is not limited to such applications.

1.3 Safety-Hazardous Materials

While the materials, methods, applications, and processes described or referenced in this specification may involve the use of hazardous materials, this specification does not address the hazards which may be involved in such use. It is the sole responsibility of the user to ensure familiarity with the safe and proper use of any hazardous materials and to take necessary precautionary measures to ensure the health and safety of all personnel involved.

2. APPLICABLE DOCUMENTS

The issue of the following documents in effect on the date of the purchase order forms a part of this specification to the extent specified herein. The supplier may work to a subsequent revision of a document unless a specific document issue is specified. When the referenced document has been cancelled and no superseding document has been specified, the last published issue of that document shall apply.

2.1 SAE Publications

Available from SAE International, 400 Commonwealth Drive, Warrendale, PA 15096-0001, Tel: 877-606-7323 (inside USA and Canada) or 724-776-4970 (outside USA), www.sae.org.

AMS2222 Tolerances, Copper and Copper Alloy Sheet, Strip, and Plate

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Documents
Document Sharing Hub

2.2 ASTM Publications

Available from ASTM International, 100 Barr Harbor Drive, P.O. Box C700, West Conshohocken, PA 19428-2959, Tel: 610-832-9585, www.astm.org.

ASTM B 194	Copper-Beryllium Alloy Plate, Sheet, Strip, and Rolled Bar
ASTM B 194	Annex - Chemical Analysis of Copper-Beryllium Alloys
ASTM B 248	General Requirements for Wrought Copper and Copper-Alloy Plate, Sheet, Strip, and Rolled Bar
ASTM B 601	Temper Designations of Copper and Copper Alloys - Wrought and Cast
ASTM E 3	Preparation of Metallographic Specimens
ASTM E 8/E 8M	Tension Testing of Metallic Materials
ASTM E 18	Rockwell Hardness of Metallic Materials
ASTM E 478	Chemical Analysis of Copper Alloys

3. TECHNICAL REQUIREMENTS

3.1 Composition

Shall conform to the percentages by weight shown in Table 1, determined by wet chemical methods in accordance with ASTM B 194 and/or ASTM E 478, by spectrochemical methods, or by other analytical methods acceptable to purchaser.

TABLE 1 - COMPOSITION

Element	min	max
Beryllium	1.80	2.00
Nickel + Cobalt	0.20	--
Nickel + Cobalt + Iron	--	0.6
Aluminum	--	0.20
Silicon	--	0.20
Copper (3.1.2)	remainder	
Sum of Named Elements (3.1.3)	99.5	--

- 3.1.1 These composition limits do not preclude the presence of other elements. Limits may be established and analysis required for unnamed elements by agreement between the manufacturer or supplier and purchaser.
- 3.1.2 Copper may be reported as 'remainder', or as the difference between the sum of results for all listed elements and 100%, or as the result of direct analysis.
- 3.1.3 When all the elements in Table 1 are analyzed, the sum shall be 99.5% minimum, but such determination is not required for routine acceptance of each lot.

3.2 Condition

Solution heat treated (Temper TB00).