AEROSPACE MATERIAL SPECIFICATION

AMS4507™	REV. K

Issued 1945-07
Reaffirmed 2016-03
Revised 2026-04

Superseding AMS4507J

Copper Alloy (Brass), Sheet, Strip, and Plate,
70Cu - 30Zn,
Half Hard (H02)
(Composition similar to UNS C26000)

RATIONALE

AMS4507K results from a Five-Year Review and update of this specification with changes to relocate Definitions (see 2.3) and update Applicable Documents (see Section 2 and 4.3), Hardness (see 8.2), and Ordering Information (see 8.6).

1. SCOPE

1.1 Form

This specification covers a copper-zinc alloy (brass) in the form of sheet, strip, and plate (see 8.6).

1.2 Application

These products have been used typically for stampings, but usage is not limited to such applications.

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 (U.S. and Canada only) or +1 724-776-4970 (outside U.S. and Canada), www.sae.org.

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

AS7766 Terms Used in Aerospace Metals Specifications

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Documents Document Sharing Hub
Full document details: SAE AMS4507K

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 B248 General Requirements for Wrought Copper and Copper-Alloy Plate, Sheet, Strip, and Rolled Bar

ASTM B601 Temper Designations for Copper and Copper Alloys - Wrought and Cast

ASTM E8/E8M Tension Testing of Metallic Materials

ASTM E18 Standard Test Methods for Rockwell Hardness of Metallic Materials

ASTM E478 Chemical Analysis of Copper Alloys

2.3 Definitions

Terms used in AMS are defined in AS7766.

2.3.1 Copper temper designations are defined in ASTM B601.

3. TECHNICAL REQUIREMENTS

3.1 Composition

Shall conform to the percentages by weight shown in Table 1, determined in accordance with ASTM E478 or by other analytical methods acceptable to the purchaser (see 8.6).

Table 1 - Composition

Element (see 3.1.1)	Min	Max
Copper	68.5	71.5
Lead	--	0.07
Iron	--	0.05
Zinc (see 3.1.2)	remainder	--
Sum of Named Elements (see 3.1.3)	99.7	

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 Zinc may be reported as “remainder,” or as the difference between the sum of results for all elements and 100%, or as the result of direct analysis.

3.1.3 When all the elements in the table are analyzed, the sum shall be 99.7% minimum, but such determination is not required for routine acceptance of each lot.

3.2 Condition

Cold rolled, half-hard (H02) temper (see 2.3.1).

3.3 Properties

The product shall conform to the following requirements:

3.3.1 Tensile Strength

Shall be 57 to 67 ksi (393 to 462 MPa), determined in accordance with ASTM E8/E8M.

Documents
Document Sharing Hub

Full document details: SAE AMS4507K