



# AEROSPACE MATERIAL SPECIFICATION

**AMS4508™****REV. K**

Issued 1948-05  
Reaffirmed 2015-03  
Revised 2026-03

Superseding AMS4508J

Copper-Zinc Alloy, Laminated Sheet,  
70Cu - 30Zn,  
Surface Bonded  
(Composition similar to UNS C26000)

## RATIONALE

AMS4508K results from a Five-Year Review and update of this specification with changes to update standard language related to UNS reference (see Title) and exceptions (see 4.4.1), relocate Definitions (see 2.3), and update Form (see 1.1), Applicable Documents (see Section 2 and 4.3), Composition (see 3.1), Condition (see 3.2), and Ordering Information (see 8.5).

### 1. SCOPE

#### 1.1 Form

This specification covers a copper-zinc alloy (brass) in the form of laminated sheet with nominal thickness 0.006 to 0.125 inch (0.15 to 3.18 mm) (see 8.5).

#### 1.2 Application

This sheet has been used typically for shims in which thickness is adjusted by removal of laminations as required, 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](http://www.sae.org).

AS7766 Terms Used in Aerospace Metals Specifications

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## 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](http://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 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 8.5).

**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) |
| 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 named elements in Table 1 are analyzed, the sum shall be 99.7% minimum, but such determination is not required for routine acceptance of each lot.

### 3.2 Condition

Laminated shim stock shall be fabricated from brass sheet in the quarter-hard (H01) or harder temper (see 2.3.1).

### 3.3 Properties

Sheet shall conform to the following requirements:

#### 3.3.1 Fabrication

3.3.1.1 Stock shall consist of laminations, each 0.002 inch  $\pm$  0.0002 inch (0.05 mm  $\pm$  0.005 mm) thick or 0.003 inch  $\pm$  0.0003 inch (0.08 mm  $\pm$  0.008 mm) thick, or one-quarter or one-half of such laminations combined with a single solid lamination, as ordered, surface bonded together so that individual laminations may be peeled for adjustment of shim thickness and the laminations cut without separation of the remaining laminations.