



AEROSPACE MATERIAL SPECIFICATION

AMS2222™**REV. L**

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Superseding AMS2222K

Tolerances
Copper and Copper Alloy Sheet, Strip, and Plate

RATIONALE

AMS2222L results from a Five-Year Review and update of this specification with changes to update applicable documents (Section 2) and flatness (Section 7), relocate definitions (2.2), and add a note regarding usage of non-refractory and refractory tables in this specification (9.2).

1. SCOPE

This specification covers established inch/pound manufacturing tolerances applicable to copper and copper alloy sheet, strip, and plate ordered to inch/pound dimensions. These tolerances apply to all conditions, unless otherwise noted.

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 +1 724-776-4970 (outside USA), www.sae.org.

AS7766 Terms Used in Aerospace Metals Specifications

2.2 Definitions

Terms used in AMS are defined in AS7766.

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Documents

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3. THICKNESS

3.1 Non-Refractory (see 9.2)

See Tables 1A through 1D.

Table 1A - Strip thickness tolerances, non-refractory

Strip Thickness Inches	Thickness Tolerances, Plus and Minus, Inches Strip 8 Inches and Under in Width	Thickness Tolerances, Plus and Minus, Inches Strip Over 8 to 14 Inches Incl, in Width	Thickness Tolerances, Plus and Minus, Inches Strip Over 14 to 20 Inches Incl, in Width	Thickness Tolerances, Plus and Minus, Inches Strip Over 20 to 24 Inches Incl, in Width
Up to 0.004, incl	0.0003	0.0006	--	--
Over 0.004 to 0.006, incl	0.0004	0.0008	0.0013	--
Over 0.006 to 0.009, incl	0.0006	0.0010	0.0015	--
Over 0.009 to 0.013, incl	0.0008	0.0013	0.0018	0.0025
Over 0.013 to 0.017, incl	0.0010	0.0015	0.002	0.0025
Over 0.017 to 0.021, incl	0.0013	0.0018	0.002	0.003
Over 0.021 to 0.026, incl	0.0015	0.002	0.0025	0.003
Over 0.026 to 0.037, incl	0.002	0.002	0.0025	0.0035
Over 0.037 to 0.050, incl	0.002	0.0025	0.003	0.004
Over 0.050 to 0.073, incl	0.0025	0.003	0.0035	0.005
Over 0.073 to 0.130, incl	0.003	0.0035	0.004	0.006
Over 0.130 to 0.188, incl	0.0035	0.004	0.0045	0.007

Table 1B - Sheet thickness tolerances, non-refractory

Strip Thickness Inches	Thickness Tolerances, Plus and Minus, Inches Sheet Over 24 to 28 Inches Incl, in Width	Thickness Tolerances, Plus and Minus, Inches Sheet Over 28 to 36 Inches Incl, in Width	Thickness Tolerances, Plus and Minus, Inches Sheet Over 36 to 48 Inches Incl, in Width	Thickness Tolerances, Plus and Minus, Inches Sheet Over 48 to 60 Inches Incl, in Width
0.004 and under	--	--	--	--
Over 0.004 to 0.006, incl	--	--	--	--
Over 0.006 to 0.009, incl	--	--	--	--
Over 0.009 to 0.013, incl	0.0025	0.003	0.0035	0.004
Over 0.013 to 0.017, incl	0.0025	0.003	0.0035	0.0045
Over 0.017 to 0.021, incl	0.003	0.0035	0.004	0.005
Over 0.021 to 0.026, incl	0.003	0.0035	0.004	0.005
Over 0.026 to 0.037, incl	0.0035	0.004	0.005	0.006
Over 0.037 to 0.050, incl	0.004	0.005	0.006	0.007
Over 0.050 to 0.073, incl	0.005	0.006	0.007	0.008
Over 0.073 to 0.130, incl	0.006	0.007	0.008	0.010
Over 0.130 to 0.188, incl	0.007	0.008	0.010	0.012

Table 1C - Rolled bar thickness tolerances, non-refractory

Rolled Bar Thickness Inches	Thickness Tolerances, Plus and Minus, Inches Rolled Bar 8 Inches and Under in Width	Thickness Tolerances, Plus and Minus, Inches Rolled Bar Over 8 to 14 Inches Incl, in Width	Thickness Tolerances, Plus and Minus, Inches Rolled Bar Over 14 to 20 Inches Incl, in Width	Thickness Tolerances, Plus and Minus, Inches Rolled Bar Over 20 to 24 Inches Incl, in Width
Over 0.188 to 0.205, incl	0.0035	0.004	0.0045	0.007
Over 0.205 to 0.300, incl	0.004	0.0045	0.005	0.009
Over 0.300 to 0.500, incl	0.0045	0.005	0.006	0.012
Over 0.500 to 0.750, incl	0.0055	0.007	0.009	0.015
Over 0.750 to 1.00, incl	0.007	0.009	0.011	0.018
Over 1.00 to 1.50, incl	0.022	0.022	0.022	0.022
Over 1.50 to 2.00, incl	0.026	0.026	0.026	0.026

Table 1D - Plate thickness tolerances, non-refractory

Plate Thickness Inches	Thickness Tolerances, Plus and Minus, Inches Plate Over 24 to 28 Inches Incl, in Width	Thickness Tolerances, Plus and Minus, Inches Plate Over 28 to 36 Inches Incl, in Width	Thickness Tolerances, Plus and Minus, Inches Plate Over 36 to 48 Inches Incl, in Width	Thickness Tolerances, Plus and Minus, Inches Plate Over 48 to 60 Inches Incl, in Width
Over 0.188 to 0.205, incl	0.007	0.008	0.010	0.012
Over 0.205 to 0.300, incl	0.009	0.010	0.012	0.014
Over 0.300 to 0.500, incl	0.012	0.013	0.015	0.018
Over 0.500 to 0.750, incl	0.015	0.017	0.019	0.023
Over 0.750 to 1.00, incl	0.0018	0.021	0.024	0.029
Over 1.00 to 1.50, incl	0.022	0.025	0.029	0.036
Over 1.50 to 2.00, incl	0.026	0.030	0.036	0.044

3.2 Refractory (see 9.2)

See Tables 2A through 2D.

Table 2A - Strip thickness tolerances, refractory

Strip Thickness Inches	Thickness Tolerances, Plus and Minus, Inches Strip 8 Inches and Under in Width	Thickness Tolerances, Plus and Minus, Inches Strip Over 8 to 14 Inches Incl, in Width	Thickness Tolerances, Plus and Minus, Inches Strip Over 14 to 20 Inches Incl, in Width	Thickness Tolerances, Plus and Minus, Inches Strip Over 20 to 24 Inches Incl, in Width
Up to 0.004, incl	0.0004	0.0008	--	--
Over 0.004 to 0.006, incl	0.0006	0.0010	0.0015	--
Over 0.006 to 0.009, incl	0.0008	0.0013	0.002	--
Over 0.009 to 0.013, incl	0.0010	0.0015	0.0025	--
Over 0.013 to 0.017, incl	0.0013	0.002	0.0025	--
Over 0.017 to 0.021, incl	0.0015	0.0025	0.003	--
Over 0.021 to 0.026, incl	0.002	0.0025	0.003	0.004
Over 0.026 to 0.037, incl	0.0025	0.003	0.0035	0.005
Over 0.037 to 0.050, incl	0.003	0.0035	0.004	0.006
Over 0.050 to 0.073, incl	0.0035	0.004	0.0045	0.007
Over 0.073 to 0.130, incl	0.004	0.0045	0.005	0.008
Over 0.130 to 0.188, incl	0.0045	0.005	0.006	0.01