

AEROSPACE MATERIAL SPECIFICATION



MAM 2242D

Issued	JUL 1980
Revised	MAR 2001
Noncurrent	MAR 2003
Cancelled	SEP 2007

Superseded by AMS 2242

Tolerances, Metric
Corrosion and Heat Resistant Steel, Iron Alloy,
Titanium, and Titanium Alloy Sheet, Strip, and Plate

RATIONALE

MAM 2242C has been designated Cancelled and Superseded because equivalent technical requirements are provided by AMS 2242.

CANCELLATION NOTICE

This specification has been declared "CANCELLED" and superseded by the Aerospace Materials Division, SAE, as of September, 2007, and has been superseded by AMS 2242. The requirements of the latest issue of AMS 2242 shall be fulfilled whenever reference is made to the cancelled MAM 2242C. By this action, this document will remain listed in the Numerical Section of the Index of Aerospace Material Specifications indicating that it has been "CANCELLED".

Cancelled specifications are available from SAE.

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NONCURRENCY NOTICE

This specification has been declared "NONCURRENT" by the Aerospace Materials Division, SAE, as of March, 2003. It is recommended, therefore, that this specification not be specified for new designs.

AMS 2242 covers the same requirements.

"NONCURRENT" refers to those materials which have been widely used and which may be required on some existing designs in the future. The Aerospace Materials Division, however, does not recommend these as standard materials for future use in new designs.

"NONCURRENT" specifications are available from SAE.

1. SCOPE:

This specification covers established manufacturing tolerances applicable to sheet, strip, and plate of corrosion and heat resistant steels, iron alloys, titanium, and titanium alloys ordered to metric dimensions. These tolerances apply to all conditions, unless otherwise noted. The term "excl" is used to apply only to the higher figure of the specified range.

1.1 These tables are based upon logical metric values and preferred metric sizes.

1.2 Throughout this specification the term "metric" is intended to refer to the SI system.

1.3 AMS 2242 is the inch/pound version of this MAM.

2. THICKNESS:

Thickness for sheet and strip is measured at any place on widths less than 25 mm, at any place 10 mm and over from an edge on widths 25 mm and over, and for plate at least 10 mm but not more than 75 mm from an edge.

2.1 Sheet:

Table 1 includes crown tolerances.

TABLE 1

Specified Thickness Millimeters	Thickness Tolerance, Millimeter Plus and Minus For Width Ranges Shown Millimeters	
	600 to 1200, incl	Over 1200
0.12	0.03	--
Over 0.12 to 0.20, incl	0.04	--
Over 0.20 to 0.40, incl	0.05	--
Over 0.40 to 0.60, incl	0.08	0.08
Over 0.60 to 1.00, incl	0.10	0.10
Over 1.00 to 1.60, incl	0.10	0.13
Over 1.60 to 1.80, incl	0.13	0.15
Over 1.80 to 2.00, incl	0.13	0.18
Over 2.00 to 2.50, incl	0.15	0.20
Over 2.50 to 3.00, incl	0.18	0.23
Over 3.00 to 3.50, incl	0.20	0.25
Over 3.50 to 4.00, incl	0.25	0.30
Over 4.00 to 5.00, excl	0.30	0.36

2.2 Strip:

Table 2 includes crown tolerances.

TABLE 2

Specified Thickness Millimeters	Thickness Tolerance	Thickness Tolerance	Thickness Tolerance
	Millimeter	Millimeter	Millimeter
	Plus and Minus For Width Ranges Shown	Plus and Minus For Width Ranges Shown	Plus and Minus For Width Ranges Shown
	Millimeters 5.00 to 150, incl	Millimeters Over 150 to 300, incl	Millimeters Over 300 to 600 excl
0.12 to 0.25, incl	10%	10%	10%
Over 0.25 to 0.30, incl	0.04	0.04	0.04
Over 0.30 to 0.35, incl	0.04	0.04	0.05
Over 0.35 to 0.45, incl	0.04	0.05	0.05
Over 0.45 to 0.50, incl	0.04	0.05	0.065
Over 0.50 to 0.75, incl	0.05	0.065	0.065
Over 0.75 to 0.90, incl	0.05	0.08	0.08
Over 0.90 to 1.25, incl	0.065	0.09	0.09
Over 1.25 to 1.75, incl	0.08	0.09	0.09
Over 1.75 to 2.50, incl	0.08	0.10	0.13
Over 2.50 to 3.20, incl	0.10	0.115	0.13
Over 3.20 to 4.10, incl	0.115	0.115	0.13
Over 4.10 to 5.00, excl	0.13	0.13	0.15

2.3 Plate:

Minus tolerances shall be 0.25 mm for all widths for all thicknesses up to 250 mm, inclusive, in alloys; plus tolerances shall be as in Table 3. For circles, the plus thickness tolerances in Table 3 apply to the diameter of the circle corresponding to the width ranges shown. For plates of irregular shape, the plus thickness tolerances apply to the greatest width corresponding to the width ranges shown.