

 AEROSPACE MATERIAL SPECIFICATION	MAM 2232C	
	Issued JAN 1983 Noncurrent MAR 2003 Cancelled JUN 2007 Superseded by AMS 2232	
Tolerances, Metric Carbon Steel, Sheet, Strip, and Plate		

RATIONALE

MAM 2232B has been designated cancelled and superseded because AMS 2232 provides equivalent technical requirements.

CANCELLATION NOTICE

This specification has been declared "CANCELLED" by the Aerospace Materials Division, SAE, as of June, 2007, and has been superseded by AMS 2232. The requirements of the latest issue of AMS 2232 shall be fulfilled whenever reference is made to the cancelled MAM 2232B. By this action, this document will remain listed in the Numerical Section of the Index of Aerospace Material Specifications noting that it is superseded by AMS 2232.

Cancelled specifications are available from SAE.

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AEROSPACE MATERIAL SPECIFICATION

Issued JAN 1983
Noncurrent MAR 2003

Superseding MAM 2232A

Tolerances, Metric
Carbon Steel, Sheet, Strip, and Plate

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 2232 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.

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1. SCOPE:

This specification covers established metric manufacturing tolerances applicable to carbon steel sheet, strip, and plate 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. Tolerances for product sizes not listed herein shall be as agreed upon by purchaser and vendor.

1.1 AMS 2232 is the inch/pound version of this MAM.

2. THICKNESS:

Tolerances apply to measurements made at any point on widths less than 25 mm, at any point not less than 10 mm from a cut edge, or not less than 20 mm from a mill edge on widths 25 mm and over, and at a point 10 to 20 mm from the longitudinal edge of rectangular sheared plates. Regardless of whether thickness tolerances for sheet and strip are specified equally or unequally, plus and minus, the total tolerance shall be equal to the arithmetic sum of the tabular plus and minus tolerances (twice the tabular tolerances when specified equally plus and minus).

2.1 Cold Rolled Sheet, Coils and Cut Lengths (See 2.1.1):

See Table 1.

TABLE 1 - Thickness Tolerances, Millimeter, Plus and Minus
for Width Ranges, Millimeters

Specified Thickness Millimeters	Over 50 to 300, incl	Over 300 to 1800, incl	Over 1800 to 2000, incl	over 2000
Up to 0.4, incl	0.05	0.05	--	--
Over 0.4 to 1.0, incl	0.08	0.08	0.08	0.15
Over 1.0 to 1.2, incl	0.10	0.10	0.10	0.15
Over 1.2 to 2.5, incl	0.12	0.12	0.15	0.18
Over 2.5 to 4.0, incl	--	0.15	0.18	0.20

2.1.1 Tolerances in Table 1 for nominal widths of 50 to 300 mm, inclusive, in nominal thicknesses of 0.4 to 2.1 mm, inclusive, apply to product slit from wider sheet.

2.2 Hot Rolled Sheets:

2.2.1 Coils and Cut Lengths: See Table 2.

TABLE 2 - Thickness Tolerances, Millimeter, Plus and Minus
for Width Ranges, Millimeters

Specified Thickness Millimeters	Over 300 to 600, incl	Over 600 to 1200, incl	Over 1200 to 1500, incl	Over 1500 to 1800, incl	Over 1800
Up to 2.0, incl	0.15	0.15	0.18	0.18	0.18
Over 2.0 to 2.5, incl	0.15	0.18	0.18	0.20	0.20
Over 2.5 to 4.0, incl	0.18	0.20	0.20	0.20	0.20
Over 4.0 to 5.5, incl	0.20	0.22	0.25	0.28	0.30
Over 5.5 to 6.0, incl	0.28	0.30	0.30	0.32	0.38

2.2.2 Coils Only: See Table 3.

TABLE 3 - Thickness Tolerances, Millimeter, Plus and Minus
for Width Ranges, Millimeters

Specified Thickness Millimeters	Over 300 to 600, incl	Over 600 to 1200, incl	Over 1200 to 1500, incl	Over 1500 to 1800, incl	Over 1800
Over 6.0 to 8.0, incl	0.25	0.28	0.30	0.32	0.38
Over 8.0 to 9.5, incl	0.30	0.30	0.32	0.38	0.40
Over 9.5 to 12.5, incl	0.35	0.35	0.35	0.40	0.45

2.2.3 Tolerances in Table 2 and Table 3 do not apply to the uncropped ends of mill edge coils.

2.3 Cold Rolled Strip, Coils and Cut Lengths:

See Table 4.

TABLE 4 - Thickness Tolerances, Millimeter, Plus and Minus
for Width Ranges, Millimeters

Specified Thickness Millimeters	up to 75, incl	Over 75 to 150, incl	Over 150 to 300, incl	Over 300 to 450, incl	Over 450 to 600, incl
Up to 0.2, incl	0.015	0.015	--	--	--
Over 0.2 to 0.3, incl	0.02	0.02	--	--	--
Over 0.3 to 0.5, incl	0.02	0.02	0.03	0.04	0.04
Over 0.5 to 0.6, incl	0.03	0.03	0.04	0.04	0.04
Over 0.6 to 0.9, incl	0.04	0.04	0.05	0.05	0.05
Over 0.9 to 1.0, incl	0.05	0.05	0.05	0.05	0.05
Over 1.0 to 1.5, incl	0.05	0.07	0.07	0.08	0.08
Over 1.5 to 2.0, incl	0.05	0.07	0.07	0.09	0.09
Over 2.0 to 4.0, incl	0.05	0.08	0.08	0.12	0.13
Over 4.0 to 5.0, incl	0.09	0.10	0.10	0.13	0.13
Over 5.0 to 6.0, incl	0.10	0.12	0.12	0.14	0.14

2.4 Hot Rolled Strip; Coils and Cut Lengths (See 2.4.1):

See Table 5.

TABLE 5 - Thickness Tolerances, Millimeter, Plus and Minus
for Width Ranges, Millimeters

Specified Thickness Millimeters	up to 100, incl	Over 100 to 200, incl	Over 200 to 300, incl
Up to 1.5, incl	0.08	0.08	0.10
Over 1.5 to 3.0, incl	0.10	0.13	0.13
Over 3.0 to 4.5, incl	0.13	0.13	0.13
Over 4.5 to 5.0, incl	0.15	0.15	0.15
Over 5.0 to 6.0, incl	--	--	0.15

2.4.1 Tolerances in Table 5 do not include crown; the tolerances shown in Table 6 are in addition to those shown in Table 5.