



# AERONAUTICAL MATERIAL SPECIFICATION

Society of Automotive Engineers, Inc.  
29 West 39th Street  
New York City

**AMS 2212c**

Issued 7-1-45

Revised 6-15-52

## TOLERANCES Magnesium Alloy Sheet and Plate

1. **PURPOSE:** To publish established manufacturing tolerances.
2. **APPLICATIONS:** Tolerances shown herein apply, unless otherwise agreed upon by purchaser and vendor. These tolerances apply to all conditions, unless otherwise noted.
3. **THICKNESS:**
  - 3.1 **Sheet and Plate:**

**TABLE I**

Nominal Thickness  
Inch

Thickness Tolerance, Inch, Plus and Minus  
Width Ranges, Inches

Nominal Thickness Inch	Thickness Tolerance, Inch, Plus and Minus Width Ranges, Inches						
	18 and under	Over 18 to 36 incl	Over 36 to 48 incl	Over 48 to 54 incl	Over 54 to 60 incl	Over 60 to 66 incl	Over 66 to 72 incl
Over 0.007 to 0.010 incl	0.001	0.0015	--	--	--	--	--
Over 0.010 to 0.017 incl	0.0015	0.0015	--	--	--	--	--
Over 0.017 to 0.028 incl	0.0015	0.002	0.0025	--	--	--	--
Over 0.028 to 0.036 incl	0.002	0.002	0.0025	--	--	--	--
Over 0.036 to 0.045 incl	0.002	0.0025	0.003	0.004	0.005	--	--
Over 0.045 to 0.068 incl	0.0025	0.003	0.004	0.005	0.006	0.006	0.007
Over 0.068 to 0.076 incl	0.003	0.003	0.004	0.005	0.006	0.008	0.010
Over 0.076 to 0.096 incl	0.0035	0.0035	0.004	0.005	0.006	0.008	0.010
Over 0.096 to 0.108 incl	0.004	0.004	0.005	0.005	0.007	0.010	0.012
Over 0.108 to 0.140 incl	0.0045	0.0045	0.005	0.005	0.007	0.010	0.012
Over 0.140 to 0.172 incl	0.006	0.006	0.008	0.008	0.009	0.012	0.014
Over 0.172 to 0.203 incl	0.007	0.007	0.010	0.010	0.011	0.014	0.016
Over 0.203 to 0.249 incl	0.009	0.009	0.011	0.011	0.013	0.016	0.018
Over 0.249 to 0.320 incl	0.013	0.013	0.013	0.013	0.015	0.018	0.020
Over 0.320 to 0.438 incl	0.019	0.019	0.019	0.019	0.020	0.020	0.023
Over 0.438 to 0.625 incl	0.025	0.025	0.025	0.025	0.025	0.025	0.025
Over 0.625 to 0.875 incl	0.030	0.030	0.030	0.030	0.030	0.030	0.030
Over 0.875 to 1.125 incl	0.035	0.035	0.035	0.035	0.035	0.035	0.035
Over 1.125 to 1.375 incl	0.040	0.040	0.040	0.040	0.040	0.040	0.040
Over 1.375 to 1.625 incl	0.045	0.045	0.045	0.045	0.045	0.045	0.045
Over 1.625 to 1.875 incl	0.052	0.052	0.052	0.052	0.052	0.052	0.052
Over 1.875 to 2.250 incl	0.060	0.060	0.060	0.060	0.060	0.060	0.060
Over 2.250 to 2.750 incl	0.075	0.075	0.075	0.075	0.075	0.075	0.075
Over 2.750 to 3.000 incl	0.090	0.090	0.090	0.090	0.090	0.090	0.090

Section 7C of the SAE Technical Standards Manual provides that: "All technical reports, including standards approved and practice recommendations, are advisory only. They are not intended to be used as a basis for any agreement or contract, and no liability is assumed by the Society of Automotive Engineers, Inc. for their use in any such agreement or contract. The user of these standards is advised to consult the appropriate patent laws and regulations and to secure the necessary patent rights in advance of their use. The Society of Automotive Engineers, Inc. is not responsible for any infringement of patents which may be claimed by any individual or organization in connection with the use of these standards."