

# AERONAUTICAL MATERIAL SPECIFICATION

Society of Automotive Engineers, Inc.  
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### T O L E R A N C E S Stainless Steel Sheet and Strip

1. **PURPOSE:** To publish established manufacturing tolerances.
2. **APPLICATION:** Tolerances shown herein apply, unless otherwise agreed between purchaser and vendor. These tolerances apply to all conditions, unless otherwise noted.
3. **THICKNESS:**

**TABLE I**  
**COLD AND HOT FINISHED SHEET**  
(thicknesses under 3/16 inch and widths 24 inches and over)

Thickness Inch	Tolerance, Inch Plus and Minus
.005	0.001
.006 to .007, incl.	.0015
.008 to .016, incl.	.002
.017 to .026, incl.	.003
.027 to .040, incl.	.004
.041 to .058, incl.	.005
.059 to .072, incl.	.006
.073 to .083, incl.	.007
.084 to .098, incl.	.008
.099 to .114, incl.	.009
.115 to .130, incl.	.010
.131 to .145, incl.	.012
.146 to .176, incl.	.014

**TABLE II**  
**COLD FINISHED STRIP**

Thickness Inch	Tolerance, Inch, Plus and Minus Width Range, Inches							
	3/16 to 1 excl.	1 to 3 excl.	3 to 6 incl.	Over 6 to 9 incl.	Over 9 to 12 incl.	Over 12 to 16 incl.	Over 16 to 20 incl.	Over 20 to 24 excl.
Under .010	10%	10%	10%	10%	10%	10%	15%	15%
.010	.001	.001	.001	.001	.001	.001	.0015	.0015
.011	.001	.001	.001	.001	.001	.0015	.0015	.0015
.012	.001	.001	.001	.001	.0015	.0015	.0015	.0015
.013 to .016, incl.	.001	.001	.001	.0015	.0015	.0015	.002	.002
.017 to .019, incl.	.001	.001	.001	.0015	.0015	.002	.002	.002
.020 to .025, incl.	.001	.001	.0015	.002	.002	.002	.0025	.0025
.026 to .028, incl.	.001	.0015	.0015	.002	.002	.002	.0025	.003
.029 to .034, incl.	.0015	.0015	.002	.0025	.0025	.0025	.003	.003
.035 to .039, incl.	.002	.002	.0025	.003	.003	.003	.003	.003
.040 to .049, incl.	.002	.002	.0025	.003	.003	.003	.004	.004
.050 to .068, incl.	.002	.002	.003	.003	.003	.003	.004	.004

**TABLE II (cont'd)  
COLD FINISHED STRIP**

Thickness Inches	Tolerance, Inch, Plus and Minus Width Range, Inches							
	3/16 to 1 excl.	1 to 3 excl.	3 to 6 incl.	Over 6 to 9 incl.	Over 9 to 12 incl.	Over 12 to 16 incl.	Over 16 to 20 incl.	Over 20 to 24 excl.
.069 to .099, incl.	.002	.002	.003	.003	.003	.004	.004	.004
.100 to .160, incl.	.002	.002	.003	.004	.004	.004	.005	.005
.161 to .187, incl.	.002	.003	.004	.004	.004	.005	.006	.006

Thickness is measured at not less than 3/8 inch from an edge.

**4. WIDTH:**

(a) Sheet - widths 24 inches and over.-

**TABLE III**

Thickness Inch	Width Range, Inches	Tolerance, Inch, Plus only
Under .131	Under 42	1/16
Under .131	42 and over	1/8
.131 and over	All	1/4

(b) Strip - widths under 24 inches.- Shall not vary in width by more than plus 1/32 inch, minus 1/32 inch.

**5. LENGTH:**

(a) Sheet - widths 24 inches and over.-

**TABLE IV**

Thickness Inch	Length Range, Feet	Tolerance, Inch, Plus only
Under .131	Under 10	1/16
Under .131	10 and over	1/8
.131 and over	All	1/4

(b) Strip - widths under 24 inches.-

**TABLE V**

Length Feet	Tolerance, Inches Plus only
5 and under	3/8
Over 5 to 10, incl.	1/2
Over 10 to 20, incl.	5/8
Over 20 to 30, incl.	3/4