

AERONAUTICAL MATERIAL SPECIFICATION

Society of Automotive Engineers, Inc.
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AMS 5044

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Revised

STEEL SHEET AND STRIP Low Carbon - Half Hard

1. ACKNOWLEDGMENT: A vendor must mention this specification number in all quotations and when acknowledging purchase orders.

2. COMPOSITION:

Individual Sheet Check
Analysis Over or Under

Carbon	0.08 - 0.13	0.01
Manganese	0.30 - 0.50	0.03
Phosphorus	0.04 max	0.008
Sulphur	0.05 max	0.008

3. CONDITION: (a) Cold rolled and oiled.

(b) Test specimens, cut across the direction of rolling except on Strip less than nine inches wide, shall conform to the following requirements:

Tensile Strength, lbs per sq in.	60,000 min
Tensile Strength, lbs per sq in.	75,000 max
Elongation, % in 2 in.	4 min
Rockwell Hardness	B 70-83

(c) Bend test specimens shall withstand cold bending through a 90° angle round a radius equal to the thickness of the test piece, but not less than 0.010 inch without cracking, the axis of bend being perpendicular to the direction of rolling.

4. QUALITY: This material must be uniform in quality and temper, straight, flat, clean and smooth, free from seams, laminations, blisters, scale and other injurious defects within the limits of best commercial manufacturing methods. Material revealing defects during fabrication is subject to rejection.

5. TOLERANCE: The following variations in thickness are permissible for widths shown. All dimensions are in inches.

THICKNESS TOLERANCES, INCHES WIDTH RANGE

Thickness	Over	Over	Over	Over	Over	Over	Over	Over	Over	Over	
Inches	12	30	32	34	36	38	42	46	50	54	
To	to	to	to	to	to	to	to	to	to	to	
&	30	32	34	36	38	42	46	50	54	Incl.	
From	Incl.	Incl.	Incl.	Incl.	Incl.	Incl.	Incl.	Incl.	Incl.	Incl.	
.0451	.0620	.0030	.0030	.0030	.0030	.0030	.0030	.0030	.0030	.0035	.0040
.0361	.0450	.0020	.0020	.0020	.0020	.0025	.0025	.0030	.0030	.0035	.0040
.0301	.0360	.0015	.0015	.0020	.0020	.0025	.0025	.0030	.0030	.....	.....
.0241	.0300	.0010	.0015	.0015	.0020	.0020	.0025	.0030	.....	.....	.....
.0181	.0240	.0010	.0015	.0015	.0020	.0020	.....	.....	.....	.....	.....
.0081	.0180	.0005	.0015	.....	.....	.....	.....	.....	.....	.....	.....