

AERONAUTICAL MATERIAL SPECIFICATION

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

AMS 5042B

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STEEL SHEET AND STRIP

Forming
Low Carbon

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

2. **COMPOSITION:**

| | |
|------------|-----------|
| Carbon | .08 - .13 |
| Manganese | .30 - .50 |
| Phosphorus | .040 max |
| Sulphur | .050 max |

3. **CONDITION:** (a) Cold rolled and oiled conforming to the following Rockwell hardness, or the equivalent:

| <u>Thickness, Inches</u> | <u>Rockwell Hardness</u> |
|--------------------------|--------------------------|
| .1875 and under | B 52-64 |
| .1876 and over | B 45-64 |

(b) Test specimens, cut transverse to the direction of rolling, shall withstand cold bending flat on themselves, without cracking.

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

| Thickness Inch | <u>WIDTH RANGE</u> | | | | | | | | | | | |
|-------------------|-------------------------------------|---------------------------------|---------------------------------|---------------------------------|---------------------------------|---------------------------------|---------------------------------|---------------------------------|---------------------------------|---------------------------------|------------|------|
| | Over 12 to & From Incl. | Over 15 to 20 Incl. | Over 20 to 24 Incl. | Over 24 to 32 Incl. | Over 32 to 40 Incl. | Over 40 to 48 Incl. | Over 48 to 60 Incl. | Over 60 to 70 Incl. | Over 70 to 80 Incl. | Over 80 to 90 Incl. | Over 90 | |
| .1875 & over | .007 | .007 | .007 | .008 | .009 | .010 | .011 | .012 | .013 | .014 | .015 | |
| .1874 | .1420 | .006 | .007 | .007 | .008 | .009 | .010 | .010 | .011 | .012 | .012 | .012 |
| .1419 | .0972 | .006 | .007 | .007 | .008 | .009 | .009 | .010 | .010 | .011 | .012 | .012 |
| .0971 | .0822 | .006 | .006 | .006 | .006 | .007 | .007 | .008 | .009 | .009 | -- | -- |
| .0821 | .0710 | .005 | .005 | .005 | .006 | .006 | .006 | .007 | .007 | .007 | -- | -- |
| .0709 | .0568 | .005 | .005 | .005 | .005 | .005 | .005 | .006 | .006 | .006 | -- | -- |
| .0567 | .0509 | .005 | .005 | .005 | .005 | .005 | .005 | .005 | .006 | .006 | -- | -- |
| .0508 | .0389 | .004 | .004 | .004 | .004 | .004 | .004 | .004 | .005 | .005 | -- | -- |
| .0388 | .0314 | .003 | .003 | .003 | .003 | .0035 | .0035 | .0035 | .004 | .004 | -- | -- |
| .0313 | .0255 | .003 | .003 | .003 | .003 | .003 | .003 | .0035 | .004 | .004 | -- | -- |
| .0254 | .0195 | .003 | .003 | .003 | .003 | .003 | .003 | .003 | -- | -- | -- | -- |
| .0194 | .0142 | .002 | .002 | .002 | .002 | .002 | .002 | .002 | -- | -- | -- | -- |
| .0141 | .0113 | -- | -- | -- | -- | .002 | .002 | -- | -- | -- | -- | -- |
| .0112 & under | | -- | -- | -- | -- | .0015 | -- | -- | -- | -- | -- | -- |