

AERONAUTICAL MATERIAL SPECIFICATION

Society of Automotive Engineers, Inc.
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AMS 5121

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Revised

STEEL SHEET AND STRIP Spring - Annealed

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

2. COMPOSITION:

		<u>Individual Sheet</u>
		<u>Check Analysis</u>
		<u>Over or Under</u>
Carbon	0.90 - 1.05	0.03
Manganese	0.30 - 0.50	0.03
Phosphorus	0.040 max	0.008
Sulphur	0.050 max	0.008

3. CONDITION: (a) Cold-rolled and annealed in thicknesses of 1/16 inch or less and either cold or hot rolled annealed in thicker sections, as specified.

(b) The hardness must be such as to properly make the part and generally in the range of Rockwell B 70-85, or the equivalent.

(c) Test specimens shall withstand cold bending, without cracking, through an angle of 180 degrees on a diameter equal to the thickness of the specimen, with the long axis of the specimen parallel to the direction of rolling; and on a diameter equal to twice the thickness of the specimen, with the long axis of the specimen perpendicular to the direction of rolling.

4. QUALITY: (a) This material must be uniform in quality and temper, free from surface or internal defects and must not reveal defects during heat treatment or fabrication.

(b) The surface shall not be decarburized to the extent of affecting the Rockwell hardness (A scale) after heat treating.

(c) All sheets and strips shall be commercially straight, flat, clean, smooth, and free from seams, laminations, blisters, scale, and other injurious defects.

5. TOLERANCES: The variations in thickness, width, and length shall be in accordance with standard published tolerances for this quality of steel.

6. REPORTS: The manufacturer shall furnish three copies of a notarized report of the chemical composition of each shipment. This report shall include the purchase order number, material specification number, size, and quantity, and part numbers if parts are supplied.