AERONAUTICAL MATERIAL SPECIFICATION

Society of Automotive Engineers, Inc.
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AMS 5047

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Revised

STEEL SHEET AND STRIP
Low Carbon, Aluminum Killed
Forming

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

2. APPLICATION: Primarily for deep drawn and formed parts requiring a material of high ductility, and where parts are to be welded.

3. COMPOSITION:

		Check Analysis Under Min or Over Max	
Carbon	0.08 - 0.13	0.02	0.03
Manganese	0.30 - 0.60	0.03	0.03
Silicon	0.20 max	--	0.03
Phosphorus	0.04 max	--	0.01
Sulfur	0.05 max	--	0.01

4. CONDITION: Aluminum killed, cold rolled, and oiled.

5. TECHNICAL REQUIREMENTS:

5.1 Hardness: Not higher than Rockwell B 55 or equivalent.

5.1.1 Acceptability of material 0.089 in. and under in thickness shall be based on conformance to one of the following requirements as applicable:

Nominal Thickness Inch	Hardness, max (Equivalent to Rockwell B 55)
0.009 to 0.014, incl	Vickers (1 kg load) 99
Over 0.014 to 0.027, incl	Rockwell Superficial 15-T 79
Over 0.027 to 0.059, incl	Rockwell Superficial 30-T 53
Over 0.059 to 0.089, incl	Rockwell F 88

5.2 Bending: Material shall withstand, without cracking or producing an "orange peel" surface, bending at room temperature flat on itself with axis of bend parallel to direction of rolling.

6. QUALITY: Material shall be uniform in quality and condition, clean, sound, smooth, and free from foreign materials and from internal and external defects detrimental to fabrication or to performance of parts.

7. TOLERANCES: Unless otherwise specified, tolerances shall conform to the latest issue of AMS 2232 as applicable.