

AERONAUTICAL MATERIAL SPECIFICATION

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AMS 6358A

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STEEL SHEET AND STRIP 0.55Ni - 0.5Cr - 0.25Mo (0.38 - 0.43C) (SAE 8740)

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

2. FORM: Sheet, strip, and plate.

3. COMPOSITION:

		Check Analysis	
		Under Min	or Over Max
Carbon	0.38 - 0.43	0.02	0.02
Manganese	0.75 - 1.00	0.04	0.04
Silicon	0.20 - 0.35	0.02	0.02
Phosphorus	0.040 max	---	0.005
Sulphur	0.040 max	---	0.005
Chromium	0.40 - 0.60	0.03	0.03
Nickel	0.40 - 0.70	0.03	0.03
Molybdenum	0.20 - 0.30	0.02	0.02

4. CONDITION: Cold finished and clean annealed, or hot rolled, annealed if necessary, and pickled, having tensile strength not higher than 90,000 psi.

5. TECHNICAL REQUIREMENTS:

5.1 Grain Size: Five or finer as determined on the rerolling slab, ASTM E19-46, method a. A heat of steel predominantly five or finer with grains as large as three is permissible.

5.2 Decarburization: Material shall be free from complete decarburization as determined microscopically and from partial decarburization to the extent that the increase in hardness from the surface to any point below the surface of an oil hardened specimen will not be more than two points on the Rockwell A scale.

5.3 Bending: Material shall withstand, without cracking, bending at room temperature through the angle indicated below around a diameter equal to the nominal thickness of the material, with axes of bends both perpendicular and parallel to the direction of rolling.

Nominal Thickness, Inch

Angle, Degrees, Min

0.249 and under

180

Over 0.249 to 0.749, incl

90

6. QUALITY: Product shall be suitable for use in aircraft. It 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.