

AERONAUTICAL MATERIAL SPECIFICATIONS

AMS 7706

SOCIETY OF AUTOMOTIVE ENGINEERS, Inc. 485 Lexington Ave., New York 17, N.Y.

Issued 9-15-57
Revised

IRON, COMMERCIALY PURE
Hot Rolled, Annealed

1. ACKNOWLEDGMENT: A vendor shall mention this specification number in all quotations and when acknowledging purchase orders.
2. FORM: Bar, sheet, strip, and plate.
3. APPLICATION: Primarily for application on direct current devices requiring high electrical conductivity, high magnetic saturation and permeability, and low magnetic retentivity, and where deep drawing or formability is required.

4. COMPOSITION:

Carbon + Manganese + Silicon + Phosphorus + Sulfur	0.10 max
Phosphorus	0.010 max
Sulfur	0.030 max
Copper	0.15 max
Iron	remainder

5. CONDITION: Hot rolled, annealed, descaled, and oiled, unless otherwise specified.

6. TECHNICAL REQUIREMENTS:

6.1 Tensile Properties:

Tensile Strength, psi	50,000 max
Yield Strength at 0.2% Offset or at 0.0063 in. in 2 in. Extension Under Load (E = 30,000,000), psi	35,000 max
Elongation, % in 2 in. or 4D	35 min

- 6.2 Hardness: Shall be as follows or equivalent:

6.2.1 Sheet:

Nominal Thickness Inch	Hardness, Rockwell B max
Under 0.0780	60
0.0780 and over	55

- 6.2.2 Bars: Not higher than Rockwell B 60.

- 6.3 Magnetic Properties: Shall be as agreed upon by purchaser and vendor.

- 6.4 Bending and Forming Requirements: Shall be as agreed upon by purchaser and vendor.