



A-36

Chemical Requirements

*Elements represented in percentage
Note 1 – Where “-” appears in this table, there is no requirement. The heat analysis for manganese shall be determined and reported as described in the heat analysis section of Specification A6/A6M.

Product	PlatesB				
Thickness, in. [mm]	To $\frac{3}{4}$ [20], incl	Over $\frac{3}{4}$ to $1\frac{1}{2}$ [20 to 40], incl	Over $1\frac{1}{2}$ to $2\frac{1}{2}$ [40 to 65], incl	Over $2\frac{1}{2}$ to 4; [65 to 100], incl	Over 4 [100]
Carbon, max, %	0.25	0.25	0.26	0.27	0.29
Manganese, %	—	0.80-1.20	0.80-1.20	0.85-1.20	0.85-1.20
Phosphorus, max, %	0.030	0.030	0.030	0.030	0.030
Sulfur, max, %	0.030	0.030	0.030	0.030	0.030
Silicon, %	0.40 max	0.40 max	0.15-0.40	0.15-0.40	0.15-0.40
Copper, min, % when copper steel is specified	0.20	0.20	0.20	0.20	0.20

Tensile Requirements

Plates, Shapes, and Bars:	
Tensile strength, ksi [MPa]	58-80 [400-550]
Yield Point, ksi [MPa]	36 [250]
Plates and Bars:	
Elongation in 8 in. [200 mm], min, %	20
Elongation in 2 in. [50 mm], min, %	23
Shapes:	
Elongation in 8 in. [200 mm], min, %	20
Elongation in 2 in. [50 mm], min, %	21