



Designation: A 678/A 678M – 00a

Standard Specification for Quenched-and-Tempered Carbon and High-Strength Low- Alloy Structural Steel Plates¹

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1. Scope

1.1 This specification covers quenched-and-tempered carbon steel and high-strength low-alloy steel plates of structural quality for welded, riveted, or bolted construction.

1.2 When the steel is to be welded, it is presupposed that a welding procedure suitable for the grade of steel and intended use or service will be used.

1.3 Material under this specification is available in four grades as follows:

Grade	Yield Strength, min, ksi	Tensile Strength, ksi [MPa]	Maximum Thickness, in. [mm]
Grade	Yield Strength, min, ksi	Tensile Strength, ksi [MPa]	Maximum Thickness, in. [mm]
A	50 [345]	70–90 [485–620]	1½ [40]
B	60 [415]	80–100 [550–690]	2½ [65]
C	^A	^A	2 [50]
D	75 [515]	90–110 [620–760]	3 [75]

^AVaries with thickness. See Table 1.

1.4 The values stated in either inch-pound units or SI units are to be regarded as standard. Within the text, the SI units are shown in brackets. The values stated in each system are not exact equivalents. Therefore, each system must be used independently of the other. Combining values from the two systems may result in nonconformance with this specification.

2. Referenced Documents

2.1 ASTM Standards:

A 6/A 6M Specification for General Requirements for Rolled Structural Steel Bars, Plates, Shapes, and Sheet Piling²

¹ This specification is under the jurisdiction of ASTM Committee A1 on Steel, Stainless Steel, and Related Alloys and is the direct responsibility of Subcommittee A01.02 on Structural Steel for Bridges, Buildings, Rolling Stock, and Ships.

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