



Designation: A 852/A 852M – 013

Standard Specification for Quenched and Tempered Low-Alloy Structural Steel Plate with 70 ksi [485 MPa] Minimum Yield Strength to 4 in. [100 mm] Thick¹

This standard is issued under the fixed designation A 852/A 852M; the number immediately following the designation indicates the year of original adoption or, in the case of revision, the year of last revision. A number in parentheses indicates the year of last reapproval. A superscript epsilon (ε) indicates an editorial change since the last revision or reapproval.

1. Scope*

1.1 This specification covers quenched and tempered high-strength low-alloy structural steel plates for welded, riveted, or bolted construction. It is intended primarily for use in welded bridges and buildings where savings in weight, added durability, and good notch toughness are important. The atmospheric corrosion resistance of this steel in most environments is substantially better than that of carbon structural steels with or without copper addition (see Note 1). When properly exposed to the atmosphere, this steel can be used bare (unpainted) for many applications. Welding technique is of fundamental importance, and it is presupposed that the welding procedure will be suitable for the steel and the intended service. This specification is limited to material up to 4 in. [100 mm], inclusive, in thickness. See Appendix X3 of Specification A 6/A 6M for information on weldability.

NOTE 1—For methods of estimating the atmospheric corrosion resistance of low-alloy steels, see Guide G 101.

1.2 Plates produced under this specification are impact tested at a temperature not higher than 50°F [10°C].

1.3 The values stated in inch-pound units or SI units are to be regarded separately as standard. Within the text, the SI units are shown in brackets. The values stated in each item 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 A01 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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