



Designation: ~~A 656/A 656M-00a~~ Designation: A 656/A 656M - 03

## Standard Specification for Hot-Rolled Structural Steel, High-Strength Low-Alloy Plate with Improved Formability<sup>1</sup>

This standard is issued under the fixed designation A 656/A 656M; 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 ( $\epsilon$ ) indicates an editorial change since the last revision or reapproval.

### 1. Scope

~~1.1 This specification covers high-strength low-alloy, hot rolled structural steel plate for use in truck frames, brackets, crane booms, rail cars, and similar applications. Steels that conform to this specification offer improved formability. These steels are normally furnished as rolled. The product is furnished in two types and four strength grades as agreed upon between the producer and purchaser. These types and strength level grades are shown in the tables.\*~~

1.1 This specification covers two types and four strength grades of high-strength low-alloy, hot rolled structural steel plate for use in truck frames, brackets, crane booms, rail cars, and similar applications. Steels that conform to this specification offer improved formability. These steels are normally furnished in the as-rolled condition. The type and strength grade furnished is as agreed upon between the manufacturer and the purchaser. The types and strength grades are shown in the tables.

1.2 The maximum thickness of plates shall be as follows:

Grade	Plate Thickness, max	
	in. [mm]	
50	2	[50]
60	1½	[40]
70	1	[25]
80	¾	[20]

1.3 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. See Appendix X3 of Specification A 6/A 6M /A6M for information on weldability.

1.4 For plates produced from coil and furnished without heat treatment or with stress relieving only, the additional requirements, including additional testing requirements and the reporting of additional test results, of Specification A 6/A 6M apply.

### 2. Referenced Documents

2.1 *ASTM Standards:*

A 6/A 6M Specification for General Requirements for Rolled Structural Steel Bars, Plates, Shapes, and Sheet Piling<sup>2</sup>

### 3. Materials and Manufacture

~~3.1 The steel shall be made to fine grain practice.~~

~~3.1.1 Coiled product is excluded from qualification to this specification until it is decoiled, leveled and cut to length. Plate produced from coil means plate that have been cut to individual lengths from a coiled product and are furnished without heat treatment. The processor decoils, levels, cuts to length, and marks the product. The processor is responsible for performing and certifying all tests, examinations, repairs, inspections, or operations not intended to affect the properties of the material. For plate produced from coils, two test results shall be reported for each qualifying coil. General Requirements for Delivery~~

3.1 Plates furnished under this specification shall conform to the requirements of the current edition of Specification A 6/A 6M, for the specific plate ordered, unless a conflict exists, in which case this specification shall prevail.

3.2 Coils are excluded from qualification to this specification until they are processed into finished plates. Plates produced from coil means plates that have been cut to individual lengths from a coil. The processor directly controls, or is responsible for, the operations involved in the processing of a coil into finished plates. Such operations include decoiling, leveling, cutting to length,

<sup>1</sup> 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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<sup>2</sup> *Annual Book of ASTM Standards*, Vol 01.04.

\*A Summary of Changes section appears at the end of this standard.