



Designation: **A830/A830M—18** **A830/A830M – 24**

Standard Specification for Plates, Carbon Steel, Structural Quality, Furnished to Chemical Composition Requirements¹

This standard is issued under the fixed designation A830/A830M; 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 structural quality carbon steel plates furnished to chemical composition requirements.
- 1.2 The plates are available in several standard steel grades and non-standard grades.
- 1.3 The plates are usually furnished in the as-rolled (hot-rolled) condition.
- 1.4 Supplementary requirements are provided for additional requirements that may be specified on the order.
- 1.5 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 utilized. See Appendix X3 of Specification **A6/A6M** for information on weldability.
- 1.6 The values stated in either SI units or inch-pound units are to be regarded separately as standard. The values stated in each system may not be exact equivalents; therefore, each system shall be used independently of the other. Combining values from the two systems may result in non-conformance with the standard.
- 1.7 *This international standard was developed in accordance with internationally recognized principles on standardization established in the Decision on Principles for the Development of International Standards, Guides and Recommendations issued by the World Trade Organization Technical Barriers to Trade (TBT) Committee.*

2. Referenced Documents

- 2.1 *ASTM Standards:*²
A6/A6M Specification for General Requirements for Rolled Structural Steel Bars, Plates, Shapes, and Sheet Piling

3. Ordering Information

- 3.1 In addition to the information required by Specification **A6/A6M**, the order shall include the following, if applicable:
 - 3.1.1 Silicon requirements (see **5.3** and Supplementary Requirement S96), and

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.

Current edition approved ~~May 1, 2018~~ March 1, 2024. Published ~~May 2018~~ March 2024. Originally approved in 1984. Last previous edition approved in ~~2014~~ 2018 as ~~A830/A830M—14~~ **A830/A830M – 18**. DOI: ~~10.1520/A0830_A0830M-18~~ 10.1520/A0830_A0830M-24.

² For referenced ASTM standards, visit the ASTM website, www.astm.org, or contact ASTM Customer Service at service@astm.org. For *Annual Book of ASTM Standards* volume information, refer to the standard's Document Summary page on the ASTM website.

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



3.1.2 Limitation on rimmed or capped steel.

3.1.3 An alternate designation (CS or DS, see Supplementary Requirement S98) may be used.

4. Materials and Manufacture

4.1 The steel shall be killed.

5. Chemical Composition

5.1 The heat analysis shall conform to the requirements for the applicable grade listed in **Table 1**, unless otherwise specified as permitted in **5.2**.

5.2 The chemical requirements for heat analysis may be specified in accordance with the ranges and limits listed in **Table 2**. In such instances, the heat analysis shall conform to the requirements specified on the order.

5.3 When silicon is required, the range on heat analysis shall be from $0.150.15\%$ to 0.40% unless otherwise specified on the order (see Supplementary Requirement S96).

5.4 When a purchaser specifies a product analysis in accordance with Supplementary Requirement S2, the product analysis shall conform to the requirements given in **Table 1**, subject to the product analysis tolerances in Specification **A6/A6M**.

6. General Requirements

6.1 Material furnished under this specification shall conform to the requirements of the current edition of Specification **A6/A6M**, for the ordered material, unless a conflict exists in which case this specification shall prevail.

7. Keywords

7.1 carbon; chemical composition; non-standard grades; plates; standard grades; steel; structural steel

ASTM A830/A830M-24

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