



Designation: A659/A659M – 12 (Reapproved 2017)

Standard Specification for Commercial Steel (CS), Sheet and Strip, Carbon (0.16 Maximum to 0.25 Maximum Percent), Hot-Rolled¹

This standard is issued under the fixed designation A659/A659M; 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.

This standard has been approved for use by agencies of the U.S. Department of Defense.

1. Scope*

1.1 This specification covers hot-rolled carbon steel (CS) sheet and strip, in coils and cut lengths, in which the maximum of the specified carbon range is over 0.15 and not over 0.25 % and the maximum of the specified manganese range is not over 0.90 %. This material is ordered to chemical composition.

1.2 This specification is not applicable to the steels covered by Specification [A635/A635M](#).

1.3 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.

1.4 *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

[A568/A568M](#) Specification for Steel, Sheet, Carbon, Structural, and High-Strength, Low-Alloy, Hot-Rolled and Cold-Rolled, General Requirements for

[A635/A635M](#) Specification for Steel, Sheet and Strip, Heavy-Thickness Coils, Hot-Rolled, Alloy, Carbon, Structural, High-Strength Low-Alloy, and High-Strength Low-Alloy with Improved Formability, General Requirements for

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 A01.19 on Steel Sheet and Strip.

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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.

[A749/A749M](#) Specification for Steel, Strip, Carbon and High-Strength, Low-Alloy, Hot-Rolled, General Requirements for

E527 Practice for Numbering Metals and Alloys in the Unified Numbering System (UNS)

2.2 *Society of Automotive Engineers Standard:*³

[J 1086](#) Numbering Metals and Alloys

3. Ordering Information

3.1 It is the purchaser's responsibility to specify in the purchase order all ordering information necessary to purchase the needed material. Examples of such information include but are not limited to the following:

3.1.1 ASTM specification number and year of issue,

3.1.2 Name of material (hot-rolled commercial steel (CS) sheet, or hot-rolled commercial steel (CS) strip),

3.1.3 Grade designation or chemical composition, or both,

3.1.4 Copper-bearing steel (if required),

3.1.5 Condition (as-rolled, pickled, or blast cleaned) (see 4.1), (2017)

3.1.5.1 Material to this specification is furnished in the hot-rolled condition. Pickled (or blast cleaned) must be specified if required,

3.1.6 Oiling (see 7.2),

3.1.7 Edges (see 7.1),

3.1.8 Dimensions (thickness, width, and whether cut lengths or coils),

NOTE 1—Not all producers are capable of meeting all of the limitations of the thickness tolerance tables in Specification [A568/A568M](#). The purchaser should contact the producer regarding possible limitations prior to placing an order.

3.1.9 Coil size (must include inside diameter, outside diameter, and maximum mass),

3.1.10 Quantity,

3.1.11 Application (show part identification and description),

3.1.12 Cast or heat analysis report (request, if required),

3.1.13 Special requirements (if required).

³ Available from Society of Automotive Engineers (SAE), 400 Commonwealth Dr., Warrendale, PA 15096-0001, <http://www.sae.org>.

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