



Standard Specification for Steel, Sheet and Strip, High-Strength, Low-Alloy, Hot-Rolled and Cold-Rolled, with Improved Atmospheric Corrosion Resistance¹

This standard is issued under the fixed designation A 606; 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 Department of Defense.

1. Scope

1.1 This specification covers high-strength, low-alloy, hot- and cold-rolled sheet and strip in cut lengths or coils, intended for use in structural and miscellaneous purposes, where savings in weight or added durability are important. These steels have enhanced atmospheric corrosion resistance and are supplied in two types: Type 2 contains 0.20 minimum copper based on cast or heat analysis (0.18 minimum Cu for product check). Type 4 contains additional alloying elements and provides a level of corrosion resistance substantially better than that of carbon steels with or without copper addition (Note 1). When properly exposed to the atmosphere, Type 4 steel can be used bare (unpainted) for many applications.

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

1.2 The values stated in inch-pound units are to be regarded as the standard.

2. Referenced Documents

2.1 ASTM Standards:

A 109 Specification for Steel, Strip, Carbon, Cold-Rolled²
A 568/A568M Specification for Steel, Sheet, Carbon, and High-Strength, Low-Alloy, Hot-Rolled and Cold-Rolled, General Requirements for²

A 749/A749M Specification for General Requirements for Steel, Carbon and High-Strength, Low-Alloy, Hot-Rolled Strip²

G 101 Guide for Estimating the Atmospheric Corrosion Resistance of Low-Alloy Steels³

3. General Requirements for Delivery —

3.1 Material furnished under this specification shall conform to the applicable requirements of the current edition of Specification A 568/A 568M and the dimensional tolerance

tables of Specification A 109, unless otherwise provided herein.

4. Ordering Information

4.1 Orders for material under this specification shall include the following information, as required, to describe adequately the desired material:

4.1.1 ASTM specification number and date of issue, and type,

4.1.2 Name of material (high-strength low-alloy hot-rolled sheet or strip or high-strength low-alloy cold-rolled sheet or strip),

4.1.3 Condition (specify oiled or dry, as required),

4.1.4 Edges (must be specified for hot-rolled sheet or strip) (see 8.1),

4.1.5 Finish—Cold-rolled only (indicate exposed (E) or unexposed (U). Matte (dull) finish will be supplied unless otherwise specified), and

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

4.1.6.1 As agreed upon between the purchaser and the producer, material ordered to this specification will be supplied to meet the appropriate standard or restricted thickness tolerance table shown in Specification A 568/A 568M.

NOTE 2—Not all producers are capable of meeting all of the limitations of the thickness tolerance tables in Specification A 568/A 568M. The purchaser should contact the producer regarding possible limitations prior to placing an order.

4.1.7 Coil size (must include inside diameter, outside diameter, and maximum weight),

4.1.8 Application (show part identification and description),

4.1.9 Special requirements (if required), and

4.1.10 Cast or heat (formerly ladle) analysis and mechanical properties report (if required) (see 10.1).

NOTE 3—A typical ordering description is as follows: “ASTM A 606–XX, Type 4 high-strength low-alloy hot-rolled sheet, dry, mill edge 0.106 by 48 by 96 in. for truck frame side members.”

5. Materials and Manufacture

5.1 *Condition*—The material shall be furnished hot-rolled or cold-rolled as specified on the purchase order.

¹ This specification is under the jurisdiction of ASTM Committee A-1 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 *Annual Book of ASTM Standards*, Vol 01.03.

³ *Annual Book of ASTM Standards*, Vol 03.02.