



Designation: A 507 – 00

Standard Specification for Drawing Alloy Steel, Sheet and Strip, Hot-Rolled and Cold-Rolled¹

This standard is issued under the fixed designation A 507; 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 hot-rolled and cold-rolled drawing alloy-steel sheet and strip. Material of this quality is produced principally for applications involving severe cold plastic deformation such as deep drawn or severely formed parts. This steel is produced by a closely controlled steel-making practice designed to assure internal soundness, relative uniformity of chemical composition, and freedom from injurious imperfections.

1.2 The material covered by this specification may be furnished in several conditions, heat treatments, surface finishes, and edges, as specified herein, in coils or cut lengths.

2. Referenced Documents

2.1 ASTM Standards:

A 505 Specification for Steel, Sheet and Strip, Alloy, Hot-Rolled and Cold-Rolled, General Requirements for²

A 941 Terminology Relating to Steel, Stainless Steel, Related Alloys, and Ferroalloys³

3. Terminology

3.1 Definitions of Terms Specific to This Standard:

3.1.1 *capable of*—as used in this specification, means that tests need not be performed. However, if application by the purchaser establishes that the material does not meet the requirements, the material shall be subject to rejection.

3.1.2 *drawing alloy steel*—alloy-steel sheet and strip intended for applications involving severe cold plastic deformation such as deep drawn or severely formed parts.

3.1.3 *standard steels*—steel chemical compositions defined as “standard” by the Society of Automotive Engineers (SAE). See Table 1 and Table A1.1.

3.1.4 *steels other than standard*—steel chemical compositions other than those defined as “standard,” and furnished to the composition limits shown in Table 2.

4. General Requirements and Ordering Information

4.1 Material supplied to this specification shall conform to Specification A 505, which includes the general requirements and establishes the rules for the ordering information that should be complied with when purchasing material to this specification.

4.2 In addition to the Ordering Information required by Specification A 505, the following shall also be included:

4.2.1 Mechanical properties, if required (show properties desired, which must be consistent with the grade and heat treatment),

4.2.2 Surface finish, if other than that normally furnished (see Section 10), and

4.2.3 Application, or end use (identification of the part to be made).

5. Manufacture

5.1 *Rolling*—The material shall be furnished either hot-rolled or cold-rolled, as specified on the order.

5.2 *Heat Treatment*—Unless otherwise specified on the order, the material shall be furnished spheroidize-annealed. (See Terminology A 941 for heat treatment terms.)

5.2.1 If the material is to be heat treated by other than the producer, the order shall so state. The material may be ordered in the as-rolled condition, in such cases.

6. Chemical Requirements

6.1 The heat (cast) analysis shall conform to the requirements for the grade specified on the order.

6.1.1 Standard steel alloy steel grades listed in Table 1 are those commonly produced for drawing alloy-steel sheet and strip.

6.1.2 Other standard steel grades are listed in Annex A1 and may be specified. However, the producer should be consulted for availability.

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 01.01.