

AEROSPACE MATERIAL SPECIFICATION



AMS-S-7947B

Issued	1998-12
Noncurrent	2002-09
Cancelled	2007-11

Superseding AMS-S-7947A

Steel, Sheet and Strip (1095) (Aircraft Quality)

RATIONALE

AMS-S-7947A has been designated cancelled as similar requirements are provided by ASTM A 684/A684M, Grade 1095.

CANCELLATION NOTICE

This specification has been declared "CANCELLED" by the Aerospace Materials Division, SAE, as of November, 2007. By this action, this document will remain listed in the Numerical Section of the Index of Aerospace Material Specifications indicating that it has been "CANCELLED".

Cancelled specifications are available from SAE.

Similar but not necessarily identical products are covered in the following specification. However, this listing is provided for information only and does not constitute authority to substitute these specifications for the "CANCELLED" specification.

ASTM A684/A684M Standard Specification for Steel, Strip, High-Carbon, Cold-Rolled (Grade 1095)

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1. SCOPE:

1.1 Scope:

This specification covers carbon steel (1095) sheet and strip of aircraft quality.

1.2 Classification:

The steel shall be furnished in one grade only, and in one of the following conditions, as specified (see 6.2):

Condition 1. Hot rolled and spheroidized annealed

Condition 2. Cold rolled and spheroidized annealed

Condition 3. Cold rolled and hardened

2. APPLICABLE DOCUMENTS:

The following publications, of the issue in effect on date of invitation for bids or request for proposal, form a part of this specification to the extent specified herein.

2.1 SAE Publication:

Available from SAE, 400 Commonwealth Drive, Warrendale, PA 15096-0001.

AMS 2301 Aircraft Quality Steel Cleanliness

2.2 U.S. Government Publications:

Available from DODSSP, Subscription Services Desk, Building 4D, 700 Robbins Avenue, Philadelphia, PA 19111-5094.

MIL-L-7870 Lubricating Oil, General Purpose, Low Temperature

FED-STD-151 Metals; Test Methods

FED-STD-183 Continuous Identification Marking of Iron and Steel Products

MIL-STD-163 Steel Mill Products Preparation for Shipment and Storage

AND10355 Tolerances-Carbon Steel Sheet and Strip

3. REQUIREMENTS:

3.1 Quality:

The steel shall comply with the size and frequency limits for magnetic indications as defined by Aeronautical Material Specification 2301.

3.2 Chemical composition:

The chemical composition shall be as specified in table I.

TABLE I - Chemical composition

Element	Range (percent)	Check analysis tolerance (percent) ¹
Carbon	0.90 - 1.03	-0.03,+0.06
Manganese	0.30 - 0.50	±0.03
Phosphorus	0.025 (max)	+0.01
Sulfur	0.025 (max)	+0.01
Silicon	0.15 - 0.30	±0.02
Nickel	0.25 (max)	+0.03
Chromium	0.20 (max)	+0.03
Molybdenum	0.06 (max)	+0.01

¹/ Individual determinations may vary from the specified range to the extent shown in the check analysis column, except that elements in any heat shall not vary both above and below the specified range.

3.3 Hardness:

3.3.1 Annealed temper: The hardness of material in the annealed condition shall be not greater than Rockwell B85, or equivalent.

3.3.2 Hard temper: The hardness of condition 3 material shall be within the range of Rockwell C47 to C52, or equivalent.