SAE Aerospace
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AEROSPACE MATERIAL SPECIFICATION

SAE AMS-QQ-A-250/10	REV. B

Issued 1997-08
Noncurrent 2007-09
Cancelled 2012-03

Superseded by ASTM B209

Aluminum Alloy 5454, Plate and Sheet

(Composition similar to UNS A95454)

RATIONALE

AMS-QQ-A-250/10B has been designated Cancelled and Superseded because equivalent technical requirements are provided by other specifications.

CANCELLATION NOTICE

This specification has been declared "CANCELLED" by the Aerospace Materials Division, SAE, as of March 2012 and has been superseded by the specifications listed below. The requirements of the latest issue of the specifications listed below shall be fulfilled whenever reference is made to the cancelled AMS-QQ-A-250/10. By this action, this document will remain listed in the Numerical Section of the Index of Aerospace Material Specifications, noting that it has been superseded by the specifications listed below.

Cancelled specifications are available from SAE.

Temper	Superseding Material and Specification
O	O Temper in accordance with ASTM B209 Alloy 5454-O; Standard Specification for Aluminum and Aluminum-Alloy Sheet and Plate
H112	H112 Temper in accordance with ASTM B209 Alloy 5454-H112; Standard Specification for Aluminum and Aluminum-Alloy Sheet and Plate
H32	H32 Temper in accordance with ASTM B209 Alloy 5454-H32; Standard Specification for Aluminum and Aluminum-Alloy Sheet and Plate
H34	H34 Temper in accordance with ASTM B209 Alloy 5454-H34; Standard Specification for Aluminum and Aluminum-Alloy Sheet and Plate

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http://www.sae.org/technical/standards/AMSQQA250/10B

NOTICE

This document has been taken directly from Federal Specification QQ-A-250/10E and contains only minor editorial and format changes required to bring it into conformance with the publishing requirements of SAE technical standards.

The original Federal Specification was adopted as an SAE standard under the provisions of the SAE Technical Standards Board (TSB) Rules and Regulations (TSB 001) pertaining to accelerated adoption of government specifications and standards. TSB rules provide for (a) the publication of portions of unrevised government specifications and standards without consensus voting at the SAE Committee level, (b) the use of the existing government specification or standard format, and (c) the exclusion of any qualified product list (QPL) sections.

The complete requirements for procuring 5454 aluminum alloy plate and sheet described herein shall consist of this document and the latest issue of AMS-QQ-A-250.

1. SCOPE AND CLASSIFICATION:

1.1 Scope:

This specification covers the specific requirements for 5454 aluminum alloy plate and sheet; the general requirements are covered in AMS-QQ-A-250.

1.2 Classification:

1.2.1 Tempers: The plate and sheet are classified in one of the following tempers as specified (See 6.2): O, H32, H34, or H112 temper. Definitions of these tempers are specified in AMS-QQ-A-250.

2. APPLICABLE DOCUMENTS:

See AMS-QQ-A-250.

3. REQUIREMENTS:

3.1 Chemical Composition:

3.1.1 The chemical composition shall conform to the requirements specified in Table I.

TABLE I. Chemical Composition 1/

	Percent	
Element	Minimum	Maximum
Magnesium	2.4	3.0
Manganese	0.50	1.0
Chromium	0.05	0.20
Iron	-	0.40
Silicon	-	0.25
Zinc	-	0.25
Titanium	-	0.20
Copper	-	0.10
Other Elements, each	-	0.05
Other Elements, total	-	0.15
Aluminum	Remainder	

1/ Analysis shall routinely be made only for the elements specifically mentioned in Table I. If, however, the presence of other elements is indicated or suspected in amounts greater than the specified limits, further analysis shall be made to determine that these elements are not present in excess of specified limits.

3.2 Mechanical Properties:

3.2.1 Mechanical Properties of Material as Supplied: The mechanical properties parallel to the direction of final rolling shall conform to the requirements of Table II for the temper specified.

TABLE II. Mechanical Properties (See 6.4)

Temper	Thickness	Tensile Strength		Yield Strength at 0.2 percent Offset	Elongation in 2 in. or 4 times D
		Minimum	Maximum	minimum	1/, 2/, minimum
	Inches	ksi	ksi	ksi	Percent
O	0.020 thru 0.031	31.0	41.0	12.0	12
	0.032 thru 0.050	31.0	41.0	12.0	14
	0.051 thru 0.113	31.0	41.0	12.0	16
	0.114 thru 3.000	31.0	41.0	12.0	18
H32	0.020 thru 0.050	36.0	44.0	26.0	5
	0.051 thru 0.249	36.0	44.0	26.0	8
	0.250 thru 2.000	36.0	44.0	26.0	12
H34	0.020 thru 0.050	39.0	47.0	29.0	4
	0.051 thru 0.161	39.0	47.0	29.0	6
	0.162 thru 0.249	39.0	47.0	29.0	7
	0.250 thru 1.000	39.0	47.0	29.0	10
H112	0.250 thru 0.499	32.0	-	18.0	8
	0.500 thru 2.000	31.0	-	12.0	11
	2.001 thru 3.000	31.0	-	12.0	15

1/ Not required for material 1/2 inch or less in width.
2/ D represents specimen diameter.

4. QUALITY ASSURANCE PROVISIONS:

See AMS-QQ-A-250.

5. PREPARATION FOR DELIVERY:

See AMS-QQ-A-250.