



# AEROSPACE MATERIAL SPECIFICATION

AMS-QQ-A-250™/5

REV. C

Issued	1997-08
Revised	1998-09
Reaffirmed	2010-05
Stabilized	2021-05

Superseding AMS-QQ-A-250/5B

Aluminum Alloy Alclad 2024, Plate and Sheet

A82024

## RATIONALE

AMS-QQ-A-250/5C corrects an error in the similar specification referenced for 2024-T861 sheet and plate called out in the stabilization notice.

## STABILIZED NOTICE

AMS-QQ-A-250/5C remains stabilized. AMS-QQ-A-250/5B was "STABILIZED" by AMS Committee D in 2014. This document will no longer be updated and may no longer represent standard industry practice. The last technical update of this document occurred in August 1998. Users of this document should refer any certification issues (e.g., exceptions listed on the certification report) to the cognizant engineering organization for their disposition. CAUTION: In many cases, the purchaser is not the cognizant engineering organization (i.e., purchaser may be a sub tier supplier).

AMS Committee D recommends that the following technically equivalent (e.g., properties, fit, form, function) specifications be used for future procurement. This listing does not constitute authority to substitute these specifications for the "STABILIZED" specification.

- |         |  |
|---------|--|
| AMS4461 | Aluminum Alloy, Sheet and Plate, Alclad 4.4Cu - 1.5Mg - 0.60Mn (Alclad 2024-O, Sheet and Plate) Annealed or when specified, "As Fabricated" (2024-F)           |
| AMS4462 | Aluminum Alloy, Sheet and Plate, Alclad 4.4Cu - 1.5Mg - 0.60Mn (Alclad 2024, -T3 Sheet, -T351 Plate) Solution Heat Treated, Cold Worked and Naturally Aged     |
| AMS4475 | Aluminum Alloy, Coiled Sheet, Alclad 4.4Cu - 1.5Mg - 0.60Mn (Alclad 2024; -T4 Coiled Sheet) Solution Heat Treated  |
| AMS4478 | Aluminum Alloy, Sheet and Plate, Alclad 4.4Cu - 1.5Mg - 0.60Mn (Alclad 2024, -T81 Sheet, -T851 Plate) Solution Heat Treated, Cold Worked and Artificially Aged |
| AMS4466 | Aluminum Alloy, Sheet and Plate, Alclad 4.4Cu - 1.5Mg - 0.60Mn (2024, -T361 Sheet & Plate) Solution Heat Treated 6% Cold Worked and Naturally Aged             |
| AMS4467 | Aluminum Alloy, Sheet and Plate, Alclad 4.4Cu - 1.5Mg - 0.60Mn (2024, -T861 Sheet & Plate) Solution Heat Treated 6% Cold Worked and Artificially Aged          |

SAE Technical Standards Board Rules provide that: "This report is published by SAE to advance the state of technical and engineering sciences. The use of this report is entirely voluntary, and its applicability and suitability for any particular use, including any patent infringement arising therefrom, is the sole responsibility of the user."

SAE reviews each technical report at least every five years at which time it may be revised, reaffirmed, stabilized, or cancelled. SAE invites your written comments and suggestions.

Copyright © 2021 SAE International

All rights reserved. No part of this publication may be reproduced, stored in a retrieval system or transmitted, in any form or by any means, electronic, mechanical, photocopying, recording, or otherwise, without the prior written permission of SAE.

TO PLACE A DOCUMENT ORDER: Tel: 877-606-7323 (inside USA and Canada)  
Tel: +1 724-776-4970 (outside USA)  
Fax: 724-776-0790  
Email: CustomerService@sae.org  
http://www.sae.org

SAE WEB ADDRESS:

For more information on this standard, visit  
<https://www.sae.org/standards/content/AMSQQA250/5C>

## NOTICE

This document has been taken directly from Federal Specification QQ-A-250/5F, Amendment 2, 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 2024 aluminum alloy alclad 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 2024 aluminum alloy alclad plate and sheet; the general requirements are covered in AMS-QQ-A-250. The plate and sheet covered by this specification shall be an integral composite product consisting of a heat-treatable aluminum alloy 2024 core with thin layers of an aluminum alloy 1230 (99.30 percent minimum aluminum) anodic to the core and of approximately equal thickness, bonded to both surfaces.

### 1.2 Classification:

1.2.1 Tempers: The plate and sheet are classified in one of the following tempers as specified (See 6.2 and 6.4): O, T3, T4, T42, T62, T72, T81, T351, T361, T851, T861, or F 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 of the core ingots or slabs and of the cladding plates used for the manufacture of the alclad plate and sheet shall conform to the requirements specified in Table I for core and cladding, respectively.