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Aerospace process — Chemical conversion coating for aluminium alloys — General purpose

Procédés de traitement dans l'industrie aérospatiale — Revêtement par conversion chimique des alliages d'aluminium — Utilisation courante

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ISO copyright office
CP 401 • Ch. de Blandonnet 8
CH-1214 Vernier, Geneva
Phone: +41 22 749 01 11
Email: copyright@iso.org
Website: www.iso.org

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Contents

Page

Foreword ..... **iv**
Introduction ..... **v**
1 Scope **1**
2 Normative references **1**
3 Terms and definitions **1**
4 Technical requirements **1**
4.1 Classification 1
4.2 Material to be coated 2
4.3 Coating materials 2
4.4 Process requirements 2
4.5 Preparation of aluminium material to be coated 2
4.6 Process details 2
4.6.1 Water characteristics 2
4.6.2 Cleaning 2
4.6.3 Deoxidizing 2
4.6.4 Racking of parts 3
4.6.5 Coating procedures 3
4.6.6 Rinsing and drying 3
5 Quality assurance provisions **3**
5.1 Responsibility for inspection 3
5.2 Lot acceptance tests 3
5.3 Process control tests 3
5.4 Process qualification tests 4
5.5 Solution control 4
5.6 Inspection and testing of coatings 4
5.6.1 Visual appearance 4
5.6.2 Coating mass per unit area 5
5.6.3 Corrosion resistance 5
5.6.4 Paint adhesion 5
5.7 Approval 5
6 Packaging and delivery **6**
6.1 Packaging 6
6.2 Delivery 6

Foreword

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The procedures used to develop this document and those intended for its further maintenance are described in the ISO/IEC Directives, Part 1. In particular, the different approval criteria needed for the different types of ISO documents should be noted. This document was drafted in accordance with the editorial rules of the ISO/IEC Directives, Part 2 (see www.iso.org/directives).

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This document was prepared by Technical Committee ISO/TC 20, *Aircraft and space vehicles*, Subcommittee SC 18, *Materials*.

This second edition cancels and replaces the first edition (ISO 8081:1985), which has been technically revised.

The main changes compared to the previous edition are as follows:

— updated the normative references in Clause 2;

— added different types of chemical conversion coatings classification, including hexavalent chromium-free chemical conversion coating (see 4.1);

— deleted chemical conversion solution requirements;

— changed air temperature of drying parts from (60 °C to 65 °C) to not more than 60 °C for type I, not more than 65 °C for type II (see 4.6.6.2);

— made the requirements of process control tests and process qualification tests clearer (see 5.3 and 5.4);

— changed the previous paint adhesion test method (see 5.6.4);

— deleted coating adhesion tests.

Any feedback or questions on this document should be directed to the user's national standards body. A complete listing of these bodies can be found at www.iso.org/members.html.

Introduction

This document provides the general purpose of chemical conversion coating for aluminium alloys in the aerospace field. The revision of ISO 8081:1985 will meet the current manufacturing requirements to introduce hexavalent chromium-free conversion coating. At the same time, several specific test panels' material in the performance test would be recommended. Some parameters in the process would also be optimized according to the actual application of aerospace field.

This document guides the surface treatment process of aerospace products to control the product quality and reduce the cost.