Aerospace series - Non-metallic materials - Structural adhesives - Test method - Part 1: Single lap shear

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EESTI STANDARDI EESSÕNA

NATIONAL FOREWORD

Käesolev Eesti standard EVS-EN 2243-1:2005 sisaldab Euroopa standardi EN 2243-1:2005 ingliskeelset teksti. Käesolev dokument on jõustatud 28.12.2005 ja selle kohta on avaldatud teade Eesti standardiorganisatsiooni ametlikus väljaandes. Standard on kättesaadav Eesti standardiorganisatsioonist.	This Estonian standard EVS-EN 2243-1:2005 consists of the English text of the European standard EN 2243-1:2005. This document is endorsed on 28.12.2005 with the notification being published in the official publication of the Estonian national standardisation organisation. The standard is available from Estonian standardisation organisation.

Käsitlusala: The objective of this standard is to establish the test methods for defining the strength of suitable structural adhesives in metal to metal single lap shear, at ambient and other temperatures.	**Scope:** The objective of this standard is to establish the test methods for defining the strength of suitable structural adhesives in metal to metal single lap shear, at ambient and other temperatures.

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Aerospace series - Non-metallic materials - Structural adhesives - Test method - Part 1: Single lap shear

Série aérospatiale - Matériaux non-métalliques - Système d'adhésifs structuraux - Méthodes d'essai - Partie 1 : Essais de cisaillement d'un joint à recouvrement simple

Luft- und Raumfahrt - Nichtmetallische Werkstoffe - Strukturelle Klebstoffsysteme - Prüfverfahren - Teil 1: Bestimmung der Bindefestigkeit von einschnittig überlappten Klebungen im Zugversuch

This European Standard was approved by CEN on 30 September 2005.

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This European Standard exists in three official versions (English, French, German). A version in any other language made by translation under the responsibility of a CEN member into its own language and notified to the Central Secretariat has the same status as the official versions.

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EUROPEAN COMMITTEE FOR STANDARDIZATION
COMITÉ EUROPÉEN DE NORMALISATION
EUROPÄISCHES KOMITEE FÜR NORMUNG

Management Centre: rue de Stassart, 36 B-1050 Brussels

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Foreword

This European Standard (EN 2243-1:2005) has been prepared by the European Association of Aerospace Manufacturers - Standardization (AECMA-STAN).

After enquiries and votes carried out in accordance with the rules of this Association, this Standard has received the approval of the National Associations and the Official Services of the member countries of AECMA, prior to its presentation to CEN.

This European Standard shall be given the status of a national standard, either by publication of an identical text or by endorsement, at the latest by May 2006, and conflicting national standards shall be withdrawn at the latest by May 2006.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. CEN [and/or CENELEC] shall not be held responsible for identifying any or all such patent rights.

According to the CEN/CENELEC Internal Regulations, the national standards organizations of the following countries are bound to implement this European Standard: Austria, Belgium, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Slovakia, Slovenia, Spain, Sweden, Switzerland and the United Kingdom.

1 Scope

The objective of this standard is to establish the test methods for defining the strength of suitable structural adhesives in metal to metal single lap shear, at ambient and other temperatures.

2 Normative references

The following referenced documents are indispensable for the application of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

EN 2087, *Aerospace series – Aluminium alloy AL-P2014A – T6 or T62 – Clad sheet and strip – 0,4 mm ≤ a ≤ 6 mm.* [1)]

EN 2088, *Aerospace series – Aluminium alloy AL-P2014A – T4 or T42 – Clad sheet and strip – 0,4 mm ≤ a ≤ 6 mm.* [1)]

EN 2090, *Aerospace series – Aluminium alloy AL-P2024- – T3 – Clad sheet and strip – 0,3 mm ≤ a ≤ 6 mm.* [1)]

EN 2092, *Aerospace series – Aluminium alloy AL-P7075- – T6 or T62 – Clad sheet and strip – 0,4 mm ≤ a ≤ 6 mm.*

EN 2334, *Aerospace series – Chromic-sulphuric acid pickle of aluminium and aluminium alloys.*

EN 2497, *Aerospace series – Dry abrasive blasting of titanium and titanium alloys.*

EN 2540, *Aerospace series – Steel FE-PM3902 (X7CrNiAl17-7) – Air melted – Solution treated and precipitation hardened – Sheet and strip – a ≤ 6 mm – 1 240 MPa ≤ R_m ≤ 1 450 MPa.* [1)]

EN 2517, *Titanium alloy TI-P63 – Annealed – Sheets, strips and plates – a ≤ 100 mm – Aerospace series.* [2)]

EN 3456, *Aerospace series – Titanium alloy TI-P64001 – Annealed – Sheet and strip, hot rolled – a ≤ 6 mm.* [1)]

EN 3464, *Aerospace series – Titanium alloy TI-P64001 – Annealed – Plate – 6 mm < a ≤ 100 mm.* [1)]

3 Test samples

3.1 Shape and dimensions

The shape and dimensions of the test pieces and the panel out of which the pieces shall be cut, shall be as given in Figure 1.

3.2 Sheet material (general)

Aluminium alloys for use to 150 °C, see EN 2088 and EN 2090.

1) Published as AECMA Prestandard at the date of publication of this standard.

2) Published as AECMA Standard at the date of publication of this standard. Inactive for new design.