

**Lennunduse ja kosmonautika seeria.  
Konstruktsiooniliimid. Katsemeetodid. Osa 4: Metall-  
kärksüdamikuga lamedakujulise konstruktsiooni  
tõmbekatse**

Aerospace series - Structural adhesives - Test methods -  
Part 4: Metal-honeycomb core flatwise tensile test

## EESTI STANDARDI EESSÕNA

## NATIONAL FOREWORD

Käesolev Eesti standard EVS-EN 2243-4:2000 sisaldab Euroopa standardi EN 2243-4:1991 ingliskeelset teksti.

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English version

Aerospace series - Structural adhesives - Test methods - Part 4: Metal-honeycomb core flatwise tensile test

Série aérospatiale - Adhésifs structuraux - Méthodes d'essais - Partie 4: Essai de traction perpendiculaire pour métal-nid d'abeilles

Luft- und Raumfahrt - Strukturelle Klebstoffe - Prüfverfahren - Teil 4: Zugversuch senkrecht zur Deckschicht für Wabenkernverbunde

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CEN

European Committee for Standardization  
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Europäisches Komitee für Normung

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### Foreword

This European Standard has been prepared by the European Association of Aerospace Manufacturers (AECMA).

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

According to the Common CEN/CENELEC Rules, the following countries are bound to implement this European Standard :

Austria, Belgium, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Luxemburg, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland and United Kingdom

## 1 Scope and field of application

This standard specifies the test methods for the determination of the strength of structural adhesives on metal-honeycomb structures flatwise tensile at ambient and other temperatures.

## 2 References

- EN 2090 Aerospace series - Aluminium alloy 2024-T3 - Clad sheets and strips -  $0,4 \leq a \leq 6$  mm <sup>1)</sup>
- EN 2334 Aerospace series - Acid chromate pickle for aluminium alloys <sup>2)</sup>
- EN 2419 Aerospace series - Aluminium alloy 2024-T351 - Plates  $6 < a \leq 80$  mm <sup>1)</sup>
- EN 2462 Aerospace series - Steel FE-PA13 - Softened - Bars  $D_e \leq 100$  mm <sup>1)</sup>
- EN 2497 Aerospace series - Dry abrasive blasting of titanium and titanium alloys
- EN 2514 Aerospace series - Aluminium alloy 5052-H191 - Foils for honeycomb <sup>2)</sup>
- EN 2517 Aerospace series - Titanium alloy Ti-P63 - Annealed - Sheets, strips and plates  $a \leq 100$  mm <sup>1)</sup>
- EN 2540 Aerospace series - Steel FE-PM62 - Sheets <sup>2)</sup>

## 3 Test samples

3.1 The shape and dimensions of the test piece shall be as given in figure 1.

Two types of test pieces are suitable :

- type A : direct bonding of honeycomb to the facing blocks,
- type B : bonding of honeycomb between the two facing sheets, then bonding of the whole to the facing blocks.

### 3.2 Materials (general)

The following materials shall be used :

#### 3.2.1 Honeycomb core : aluminium alloy see EN 2514

The honeycomb core shall be without perforations or additional corrosion protection.

#### 3.2.2 Facing sheets : aluminium alloy see EN 2090.

#### 3.2.3 Facing blocks : aluminium alloy see EN 2419.

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

2) In preparation at the date of publication of the present standard.