



# SLOVENSKI STANDARD

## SIST EN 2131:2004

01-maj-2004

---

**Aerospace series - Plates in aluminium alloys - Thickness 6 mm < a < 160 mm - Dimensions**

Aerospace series - Plates in aluminium alloys - Thickness 6 mm < a < 160 mm - Dimensions

Luft- und Raumfahrt - Platten aus Aluminiumlegierungen - Dicken 6 mm < a < 160 mm - Maße

**iTeh STANDARD PREVIEW**  
**(standards.iteh.ai)**

Série aérospatiale - Plaques en alliages d'aluminium - Épaisseurs 6 mm < a < 160 mm - Dimensions

[SIST EN 2131:2004](https://standards.iteh.ai/catalog/standards/sist/48e57757-afe2-4d0a-bd92-e685fb56d1e4/sist-en-2131-2004)

[https://standards.iteh.ai/catalog/standards/sist/48e57757-afe2-4d0a-bd92-](https://standards.iteh.ai/catalog/standards/sist/48e57757-afe2-4d0a-bd92-e685fb56d1e4/sist-en-2131-2004)

[e685fb56d1e4/sist-en-2131-2004](https://standards.iteh.ai/catalog/standards/sist/48e57757-afe2-4d0a-bd92-e685fb56d1e4/sist-en-2131-2004)

**Ta slovenski standard je istoveten z: EN 2131:2001**

---

**ICS:**

49.025.20      Aluminij

Aluminium

**SIST EN 2131:2004**

**en**

**iTeh STANDARD PREVIEW**  
**(standards.iteh.ai)**

[SIST EN 2131:2004](#)

<https://standards.iteh.ai/catalog/standards/sist/48e57757-afe2-4d0a-bd92-e685fb56d1e4/sist-en-2131-2004>

ICS 49.025.20

English version

Aerospace series - Plates in aluminium alloys - Thickness 6 mm  
<math>a \leq 160\text{ mm}</math> - DimensionsSérie aéronautique - Plaques en alliages d'aluminium -  
Epaisseurs 6 mm <math>a \leq 160\text{ mm}</math> - DimensionsLuft- und Raumfahrt - Platten aus Aluminiumlegierungen -  
Dicken 6 mm <math>a \leq 160\text{ mm}</math> - Maße

This European Standard was approved by CEN on 2 May 2001.

CEN members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for giving this European Standard the status of a national standard without any alteration. Up-to-date lists and bibliographical references concerning such national standards may be obtained on application to the Management Centre or to any CEN member.

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 Management Centre has the same status as the official versions.

CEN members are the national standards bodies of Austria, Belgium, Czech Republic, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Luxembourg, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland and United Kingdom.

[SIST EN 2131:2004](https://standards.iteh.ai/catalog/standards/sist/48e57757-afe2-4d0a-bd92-e685fb56d1e4/sist-en-2131-2004)

<https://standards.iteh.ai/catalog/standards/sist/48e57757-afe2-4d0a-bd92-e685fb56d1e4/sist-en-2131-2004>

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

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

## 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 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 June 2002, and conflicting national standards shall be withdrawn at the latest by June 2002.

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

## 0 Introduction

This standard is part of the series of EN metallic material standards for aerospace applications. The general organization of this series is described in EN 4258.

## 1 Scope

This standard specifies the dimensions and tolerances of:

Plates  
in aluminium alloys  
Thickness  $6 \text{ mm} < a \leq 160 \text{ mm}$

for aerospace applications.

## 2 Normative references

This European Standard incorporates by dated or undated reference provisions from other publications. These normative references are cited at the appropriate places in the text and the publications are listed hereafter. For dated references, subsequent amendments to or revisions of any of these publications apply to this European Standard only when incorporated in it by amendment or revision. For undated references the latest edition of the publication referred to applies.

EN 3848 Aerospace series – Semi-finished metallic products – Method of measuring form deviations

EN 4258 Aerospace series – Metallic materials – General organization of standardization – Links between types of EN standards and their use

## 3 Form

See figure 1.

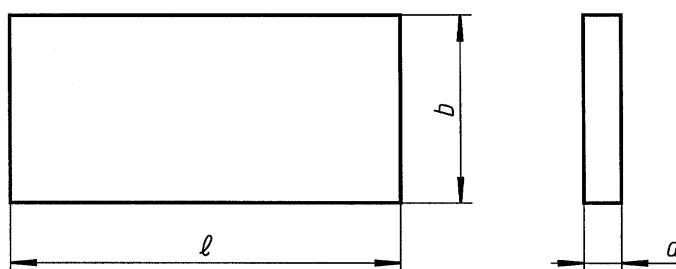


Figure 1

#### 4 Recommended dimensions and mass

See table 1.

Table 1

Nominal <i>a</i> mm	Typical width <i>b</i> mm	Typical length <i>l</i> mm	Mass per unit area <sup>a</sup> kg/m <sup>2</sup>
8	1 000 to 2 000	1 000 to 2 000	22,4
10	1 000 to 2 000	1 000 to 2 000	28,0
12	1 000 to 2 000	1 000 to 2 000	33,6
14	1 000 to 2 000	1 000 to 2 000	39,2
16	1 000 to 2 000	1 000 to 2 000	44,8
20	1 000 to 2 000	1 000 to 2 000	56,0
25	1 000 to 2 000	1 000 to 2 000	70,0
30	1 000 to 2 000	1 000 to 2 000	84,0
35	1 000 to 2 000	1 000 to 2 000	98,0
40	1 000 to 2 000	1 000 to 2 000	112,0
45	1 000 to 2 000	1 000 to 2 000	126,0
50	1 000 to 2 000	1 000 to 2 000	140,0
55	1 000 to 2 000	1 000 to 2 000	154,0
60	1 000 to 2 000	1 000 to 2 000	168,0
65	1 000 to 2 000	1 000 to 2 000	182,0
70	1 000 to 1 700	1 000 to 2 000	196,0
75	1 000 to 1 700	1 000 to 2 000	210,0
80	1 000 to 1 700	1 000 to 2 000	224,0
85	1 000 to 1 700	2 000 to 2 500	238,0
90	500 to 1 400	2 000 to 4 000	252,0
95	500 to 1 400	2 000 to 4 000	266,0
100	500 to 1 400	2 000 to 4 000	280,0
105	500 to 1 400	2 000 to 4 000	294,0
110	500 to 1 250	2 000 to 4 000	308,0
115	500 to 1 250	2 000 to 4 000	322,0
120	500 to 1 250	2 000 to 4 000	336,0
125	500 to 1 250	2 000 to 4 000	350,0
130	500 to 1 000	2 000 to 4 000	364,0
135	500 to 1 000	2 000 to 4 000	378,0
140	500 to 1 000	2 000 to 4 000	392,0
150	500 to 1 000	2 000 to 4 000	420,0
160	500 to 1 000	2 000 to 4 000	448,0

<sup>a</sup> For information, calculated with a density of 2,8 kg/dm<sup>3</sup>

## 5 Tolerances

### 5.1 Dimensional tolerances

#### 5.1.1 Thickness

See table 2.

Measurements shall be taken at least 20 mm from the edge.

**Table 2**

Dimensions in millimetres

Thickness	Tolerances for width:				
	$b \leq 1\ 250$	$1\ 250 < b \leq 1\ 600$	$1\ 600 < b \leq 2\ 000$	$2\ 000 < b \leq 2\ 500$	$2\ 500 < b \leq 3\ 100$
$6 < a \leq 8$	$\pm 0,30$	$\pm 0,35$	$\pm 0,40$	$\pm 0,40$	$\pm 0,50$
$8 < a \leq 10$	$\pm 0,35$	$\pm 0,40$	$\pm 0,40$	$\pm 0,45$	$\pm 0,55$
$10 < a \leq 12$	$\pm 0,40$	$\pm 0,45$	$\pm 0,50$	$\pm 0,55$	$\pm 0,60$
$12 < a \leq 16$	$\pm 0,50$	$\pm 0,55$	$\pm 0,60$	$\pm 0,65$	$\pm 0,70$
$16 < a \leq 20$	$\pm 0,60$	$\pm 0,65$	$\pm 0,70$	$\pm 0,75$	$\pm 0,80$
$20 < a \leq 25$	$\pm 0,70$	$\pm 0,75$	$\pm 0,75$	$\pm 0,85$	$\pm 0,85$
$25 < a \leq 30$	$\pm 0,75$	$\pm 1,0$	$\pm 1,2$	$\pm 1,2$	$\pm 1,2$
$30 < a \leq 35$	$\pm 0,85$	$\pm 1,1$	$\pm 1,3$	$\pm 1,3$	$\pm 1,3$
$35 < a \leq 40$	$\pm 1,0$	$\pm 1,1$	$\pm 1,3$	$\pm 1,4$	$\pm 1,4$
$40 < a \leq 50$	$\pm 1,2$	$\pm 1,3$	$\pm 1,5$	$\pm 1,7$	$\pm 1,7$
$50 < a \leq 60$	$\pm 1,5$	$\pm 1,5$	$\pm 1,7$	$\pm 1,9$	$\pm 1,9$
$60 < a \leq 70$	$\pm 1,7$	$\pm 1,8$	$\pm 2,0$	$\pm 2,2$	$\pm 2,2$
$70 < a \leq 80$	$\pm 2,0$	$\pm 2,1$	$\pm 2,4$	$\pm 2,5$	$\pm 2,5$
$80 < a \leq 100$	$\pm 2,2$	$\pm 2,2$	$\pm 2,7$	$\pm 2,7$	$\pm 2,7$
$100 < a \leq 120$	$\pm 2,4$	$\pm 2,4$	$\pm 2,9$	$\pm 2,9$	$\pm 2,9$
$120 < a \leq 160$	$\pm 2,5$	$\pm 2,5$	$\pm 3,0$	$\pm 3,2$	$\pm 3,2$

#### 5.1.2 Width

See table 3.

**Table 3**

Dimensions in millimetres

Width	Tolerance
All	+ 10 0

EN 2131:2001 (E)

**5.1.3 Length**

See table 4.

**Table 4**

Dimensions in millimetres

Length	Tolerances for thickness: All
$l \leq 5\,000$	+ 10 0
$l > 5\,000$	+ 0,002 $\times$ $l$ 0

**5.2 Geometric tolerances****5.2.1 Squareness****5.2.1.1 Method of measurement**

See EN 3848.

**5.2.1.2 Tolerances**

See table 5.

**iTeh STANDARD PREVIEW**  
(standards.iteh.ai)

**Table 5**

SIST EN 2131:2004

<https://standards.iteh.ai/catalog/standards/sist/48e57757-afe2-40a-ba92-e685fb56d1e4/sist-en-2131-2004>

Dimensions in millimetres

Length	Maximum differences in the lengths of diagonals for all widths and thicknesses
$l \leq 2\,000$	8
$2\,000 < l \leq 5\,000$	10
$l > 5\,000$	$0,002 \times l$

**5.2.2 Lateral curvature****5.2.2.1 Method of measurement and symbol**

See EN 3848.

**5.2.2.2 Tolerances**

See table 6.

The lateral curvature may be concave or convex.

**Table 6**

Dimensions in millimetres

Thickness	Lateral curvature $F$ on:	
	width	length
$6 < a \leq 160$	$\leq 0,002 \times b$	$\leq 0,002 \times l$