



# SLOVENSKI STANDARD SIST EN 2693:2005

01-november-2005

**BUXca Yý U.**  
**SIST EN 2693:2001**

**Aerospace series - Aluminium alloy AL-P5086-H111 - Sheet and strip - 0,3 mm < a <6 mm**

Aerospace series - Aluminium alloy AL-P5086-H111 - Sheet and strip - 0,3 mm < a <6 mm

# iTeh STANDARD PREVIEW

[iumlegierung-al-p5086-h11.standards.itch.ai](http://iumlegierung-al-p5086-h11.standards.itch.ai)

Luft- und Raumfahrt - Aluminiumlegierung AL-P5086-H111 - Bleche und Bänder - 0,3 mm < a < 6 mm

SIST EN 2693:2005

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Série aérospatiale - Alliage d'aluminium AL-P5086-H111 - Tôles et bandes - 0,3 mm < a < 6 mm

**Ta slovenski standard je istoveten z: EN 2693:2005**

**ICS:**

## 49.025.20 Aluminij Aluminium

SIST EN 2693:2005 en

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EUROPEAN STANDARD  
NORME EUROPÉENNE  
EUROPÄISCHE NORM

EN 2693

June 2005

ICS 49.025.20

Supersedes EN 2693:1993

English version

Aerospace series - Aluminium alloy AL-P5086-H111 - Sheet and  
strip - 0,3 mm ≤a≤6 mm

Série aérospatiale - Alliage d'aluminium AL-P5086-H111 -  
Tôles et bandes - 0,3 mm ≤a≤6 mm

Luft- und Raumfahrt - Aluminiumlegierung AL-P5086-  
H111 - Bleche und Bänder - 0,3 mm ≤a≤6 mm

This European Standard was approved by CEN on 22 April 2005.

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 Central Secretariat 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 Central Secretariat has the same status as the official versions.

CEN members are the national standards bodies of 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 United Kingdom.

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

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## Foreword

This document (EN 2693:2005) 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 December 2005, and conflicting national standards shall be withdrawn at the latest by December 2005.

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.

This document supersedes EN 2693:1993.

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.

THE STANDARD PUBLISHING  
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## 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.

This standard has been prepared in accordance with EN 4500-2.

## 1 Scope

This standard specifies the requirements relating to:

Aluminium alloy AL-P5086-  
H111  
Sheet and strip  
 $0,3 \text{ mm} \leq a \leq 6 \text{ mm}$

for aerospace application.

## 2 Normative references

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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 2693:2005](#)

<https://standards.iteh.ai/catalog/standards/sist/fa76ecf6-f780-4d15-a005-0000000000000000>  
EN 4258, Aerospace series — Metallic materials — General organization of standardization — Links between types of EN standards and their use.

EN 4400-2, Aerospace series — Aluminium and aluminium alloy wrought products — Technical specification — Part 2: Sheet and strip.<sup>1)</sup>

EN 4500-2, Aerospace series — Metallic materials — Rules for drafting and presentation of material standards — Part 2: Specific rules for aluminium, aluminium alloys and magnesium alloys.<sup>1)</sup>

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

## EN 2693:2005 (E)

1	Material designation			Aluminium alloy AL-P5086-									
2	% Chemical composition	Element	Si	Fe	Cu	Mn	Mg	Cr	Zn	Ti	Others		AI Base
			min.	–	–	0,20	3,5	0,05	–	–	–	–	
		max.	0,40	0,50	0,10	0,7	4,5	0,25	0,25	0,15	0,05	0,15	
3	Method of melting			–									
4.1	Form			Sheet and strip									
4.2	Method of production			Rolled									
4.3	Limit dimension(s)		mm	0,3 ≤ a ≤ 6									
5	Technical specification			EN 4400-2									

6.1	Delivery condition	H111
	Heat treatment	–
6.2	Delivery condition code	U
7	Use condition	H111
	Heat treatment	Delivery condition

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**Characteristics**  
**(standards.iteh.ai)**

8.1	Test sample(s)			See EN 4400-2.						
8.2	Test piece(s)			SIST EN 2693:2005 See EN 4400-2. <a href="https://standards.iteh.ai/catalog/standards/sist/676eeb647804d15-a005">https://standards.iteh.ai/catalog/standards/sist/676eeb647804d15-a005</a>						
8.3	Heat treatment			Use condition c3d0ab37e01a/sist-en-2693-2005						
9	Dimensions concerned		mm	0,3 ≤ a ≤ 0,8		0,8 < a ≤ 3,2		3,2 < a ≤ 6		
10	Thickness of cladding on each face		%	–		–		–		
11	Direction of test piece			LT		LT		LT		
12	Temperature	θ	°C	Ambient		Ambient		Ambient		
13	Proof stress	R <sub>p0,2</sub>	MPa	≥ 100		≥ 100		≥ 100		
14	T	Strength	R <sub>m</sub>	MPa	≥ 240		≥ 240			
15		Elongation	A	%	A <sub>50 mm</sub> ≥ 16		A <sub>50 mm</sub> ≥ 18			
16	Reduction of area	Z	%	–		–		–		
17	Hardness			–		–		–		
18	Shear strength	R <sub>c</sub>	MPa	–		–		–		
19	Bending	k	–	0,75: α = 180°		0,75: α = 180°		1: α = 180°		
20	Impact strength			–						
21	C	Temperature	θ	°C	–					
22		Time		h	–					
23		Stress	σ <sub>a</sub>	MPa	–					
24		Elongation	a	%	–					
25		Rupture stress	σ <sub>R</sub>	MPa	–					
26		Elongation at rupture	A	%	–					
27	Notes (see line 98)			–						

38	Intergranular corrosion	-	See EN 4400-2.
44	External defects	-	See EN 4400-2.
95	Marking inspection	-	See EN 4400-2.
96	Dimensional inspection	-	See EN 4400-2.
98	Notes	-	-
99	Typical use	-	-

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**EN 2693:2005 (E)**

100	-	Product qualification	-	See EN 4400-2. Qualification programme to be agreed between manufacturer and purchaser.
				<p style="text-align: center;"><b>iTeh STANDARD PREVIEW</b> <b>(standards.iteh.ai)</b></p> <p style="text-align: center;">SIST EN 2693:2005 <a href="https://standards.iteh.ai/catalog/standards/sist/fa76ecf6-f780-4d15-a005-c3d0ab37e01a/sist-en-2693-2005">https://standards.iteh.ai/catalog/standards/sist/fa76ecf6-f780-4d15-a005-c3d0ab37e01a/sist-en-2693-2005</a></p>