

**Aerospace series —  
Aluminium alloy  
AL-P5052-O —  
Sheet and strip  
0,3 mm ≤ a ≤ 6 mm**

The European Standard EN 4005:2007 has the status of a  
British Standard

ICS 77.150.10

## National foreword

This British Standard was published by BSI. It is the UK implementation of EN 4005:2007.

The UK participation in its preparation was entrusted by Technical Committee ACE/61, Metallic materials for aerospace purposes, to Panel ACE/61/-/24, Light alloys.

A list of organizations represented on this committee can be obtained on request to its secretary.

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English Version

**Aerospace series - Aluminium alloy AL-P5052-O - Sheet and strip  $0,3 \text{ mm} \leq a \leq 6 \text{ mm}$** Série aérospatiale - Alliage d'aluminium AL-P5052-O -  
Tôles et bandes  $0,3 \text{ mm} \leq a \leq 6 \text{ mm}$ Luft- und Raumfahrt - Aluminiumlegierung AL-P5052-O -  
Bleche und Bänder  $0,3 \text{ mm} \leq a \leq 6 \text{ mm}$ 

This European Standard was approved by CEN on 12 June 2006.

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## Foreword

This document (EN 4005:2007) has been prepared by the AeroSpace and Defence Industries Association of Europe - Standardization (ASD-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 ASD, 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of an identical text or by endorsement, at the latest by September 2007, and conflicting national standards shall be withdrawn at the latest by September 2007.

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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-P5052-O — Sheet and strip  $0,3 \text{ mm} \leq a \leq 6 \text{ mm}$  for aerospace applications.

## **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 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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<sup>1)</sup> Published as ASD Prestandard at the date of publication of this standard.

1	Material designation		Aluminium alloy AL-P5052-									
2	Chemical composition %	Element	Si	Fe	Cu	Mn	Mg	Cr	Zn	Others		Al
		min.	—	—	—	—	2,2	0,15	—	—	—	
		max.	0,25	0,40	0,10	0,10	2,8	0,35	0,10	0,05	0,15	Base
3	Method of melting		—									
4.1	Form		Sheet and strip									
4.2	Method of production		Rolled									
4.3	Limit dimension(s)	mm	$0,3 \leq a \leq 6$									
5	Technical specification		EN 4400-2									

6.1	Delivery condition	O
	Heat treatment	—
6.2	Delivery condition code	U
7	Use condition	O
	Heat treatment	Delivery condition

Characteristics

8.1	Test sample(s)		See EN 4400-2.											
8.2	Test piece(s)		See EN 4400-2.											
8.3	Heat treatment		Use condition											
9	Dimensions concerned	mm	$0,3 \leq a \leq 0,8$					$0,8 < a \leq 6$						
10	Thickness of cladding on each face	%	—					—						
11	Direction of test piece		LT					LT						
12	Temperature	$\theta$	°C		Ambient					Ambient				
13	Proof stress	$R_{p0,2}$	MPa		$\geq 65$					$\geq 65$				
14	T Strength	$R_m$	MPa		$170 \leq R_m \leq 215$					$170 \leq R_m \leq 215$				
15	Elongation	$A$	%		$A_{50 \text{ mm}} \geq 16$					$A_{50 \text{ mm}} \geq 19$				
16	Reduction of area	$Z$	%		—									
17	Hardness		—											
18	Shear strength	$R_c$	MPa		—									
19	Bending	$k$	—		—									
20	Impact strength		—											
21	Temperature	$\theta$	°C		—									
22	Time		h		—									
23	Stress	$\sigma_a$	MPa		—									
24	C Elongation	$a$	%		—									
25	Rupture stress	$\sigma_R$	MPa		—									
26	Elongation at rupture	$A$	%		—									
27	Notes (see line 98)		—											

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	—	—



100	—	Product qualification	—	See EN 4400-2.
				Qualification programme to be agreed between manufacturer and purchaser.

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