BRITISH STANDARD AEROSPACE SERIES

BS EN
3506:2001

Hot rolled sheets and plates in heat resisting alloys — Thickness 2,0 mm ≤ a ≤ 100mm — Dimensions

The European Standard EN 3506:2001 has the status of a British Standard

ICS 49.025.99; 49.035;

National foreword

This British Standard is the official English language version of EN 3506:2001.

The UK participation in its preparation was entrusted to Technical Committee ACE/61, Inspection and testing requirements for aerospace metallic materials, which has the responsibility to:

— aid enquirers to understand the text;

— present to the responsible European committee any enquiries on the interpretation, or proposals for change, and keep the UK interests informed;

— monitor related international and European developments and promulgate them in the UK.

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

Cross-references

The British Standards which implement international or European publications referred to in this document may be found in the BSI Standards Catalogue under the section entitled "International Standards Correspondence Index", or by using the "Find" facility of the BSI Standards Electronic Catalogue.

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This British Standard, having been prepared under the direction of the Engineering Sector Policy and Strategy Committee, was published under the authority of the Standards Policy and Strategy Committee on 22 October 2001

Summary of pages

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EUROPEAN STANDARD

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EN 3506

September 2001

ICS 49.025.99

English version

Aerospace series - Hot rolled sheets and plates in heat resisting alloys - Thickness 2,0 mm ≤ a ≤ 100 mm - Dimensions

Série aérospatiale - Tôles et plaques épaisses laminées à chaud en alliages résistant à chaud - Epaisseurs 2,0 mm ≤ a ≤ 100 mm - Dimensions

Luft- und Raumfahrt - Warmgewalzte Bleche und Platten aus hochwarmfesten Legierungen - Dicken 2,0 mm ≤ a ≤ 100 mm - Maße

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

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

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

Ref. No. EN 3506:2001 E

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 March 2002, and conflicting national standards shall be withdrawn at the latest by March 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:

Hot rolled sheets and plates
in heat resisting alloys
Thickness 2,0 mm $\leq a \leq$ 100 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.

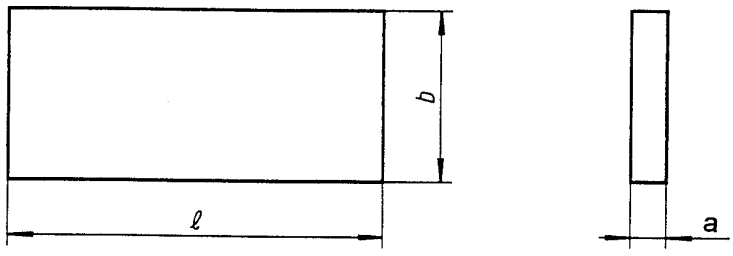

Figure 1

4 Recommended dimensions and mass

See table 1.

Table 1

Nominal *a* mm	**Mass per unit area** [a] kg/m^2
2,0	16,2
2,2	17,8
2,5	20,3
2,8	22,7
3,2	25,9
3,5	28,4
4,0	32,4
4,5	36,5
5,0	40,5
6,0	48,6
7,0	56,7
8,0	64,8
9,0	72,9
10,0	81,0
11,0	89,1
12,0	97,2
14,0	113,4
15,0	121,5
16,0	129,6
18,0	145,8
20,0	162,0
22,0	178,2
25,0	202,5
28,0	226,8
30,0	243,0
32,0	259,2
35,0	283,5
40,0	324,0
45,0	364,5
50,0	405,0
56,0	453,6
63,0	510,3
71,0	575,1
80,0	648,0
90,0	729,0
100,0	810,0

[a] For information, calculated with a density of 8,1 kg/dm^3

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:		
	$b \leq 1\,000$	$1\,000 < b \leq 2\,000$	$b > 2\,000$
$2{,}0 \leq a \leq 2{,}8$	$\pm 0{,}2$	$\pm 0{,}3$	$\pm 0{,}4$
$2{,}8 < a \leq 3{,}5$	$\pm 0{,}3$	$\pm 0{,}4$	$\pm 0{,}5$
$3{,}5 < a \leq 4{,}5$	$\pm 0{,}3$	$\pm 0{,}5$	$\pm 0{,}6$
$4{,}5 < a \leq 5{,}0$	$\pm 0{,}4$	$\pm 0{,}6$	$\pm 0{,}8$
$5{,}0 < a \leq 7{,}0$	$\pm 0{,}5$	$\pm 0{,}8$	$\pm 1{,}0$
$7{,}0 < a \leq 9{,}0$	$\pm 0{,}6$	$\pm 0{,}9$	$\pm 1{,}2$
$9{,}0 < a \leq 10{,}0$	$\pm 0{,}7$	$\pm 1{,}0$	$\pm 1{,}4$
$10{,}0 < a \leq 14{,}0$	$\pm 0{,}8$	$\pm 1{,}2$	$\pm 1{,}6$
$14{,}0 < a \leq 18{,}0$	$\pm 1{,}0$	$\pm 1{,}5$	$\pm 2{,}0$
$18{,}0 < a \leq 22{,}0$	$\pm 1{,}2$	$\pm 1{,}8$	$\pm 2{,}4$
$22{,}0 < a \leq 28{,}0$	$\pm 1{,}4$	$\pm 2{,}1$	$\pm 2{,}8$
$28{,}0 < a \leq 36{,}0$	$\pm 1{,}7$	$\pm 2{,}6$	$\pm 3{,}4$
$36{,}0 < a \leq 45{,}0$	$\pm 2{,}0$	$\pm 3{,}0$	$\pm 4{,}0$
$45{,}0 < a \leq 56{,}0$	$\pm 2{,}5$	$\pm 3{,}8$	$\pm 5{,}0$
$56{,}0 < a \leq 80{,}0$	$\pm 3{,}5$	$\pm 4{,}5$	$\pm 6{,}0$
$80{,}0 < a \leq 100{,}0$	$\pm 4{,}0$	$\pm 6{,}0$	$\pm 8{,}0$

5.1.2 Width

The tolerance on fixed widths b is $^{+\,(10+\,0{,}001\,b)}_{0}$ mm.

5.1.3 Length

The tolerance on fixed lengths ℓ is $^{+\,(10+\,0{,}001\,\ell)}_{0}$ mm.

5.2 Geometric tolerances

5.2.1 Squareness

5.2.1.1 Method of measurement

See EN 3848.

5.2.1.2 Tolerances

The maximum difference in the lengths of the diagonals shall be $(6 + 0{,}001\,AA)$ mm.

5.2.2 Lateral curvature

5.2.2.1 Method of measurement and symbol

See EN 3848.

5.2.2.2 Tolerances

See table 3.

The lateral curvature may be concave or convex.

Table 3

Dimensions in millimetres

Thickness	Lateral curvature F on:	
	width	length
$2 \leq a \leq 100$	$\leq 0{,}01 \times b$	$\leq 0{,}01 \times \ell$

5.2.3 Flatness

5.2.3.1 Method of measurement and symbols

See EN 3848.

5.2.3.2 Tolerances

See table 4.

Table 4

Dimensions in millimetres

Thickness	Flatness deviation f for:		
	all widths	all lengths	chord $W = 300$
$2 \leq a \leq 100$	$\leq 0{,}003 \times b$	$\leq 0{,}003 \times \ell$	≤ 1

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