



SLOVENSKI STANDARD

SIST EN 3904:2018

01-februar-2018

Aeronavtika - Podložke, zapiralne žice iz aluminijeve zlitine, anodizirane

Aerospace series - Washers, wire locking in aluminium alloy, anodized

Luft- und Raumfahrt - Scheiben, Drahtsicherung aus Aluminiumlegierung, anodisiert

Série aérospatiale - Pattes d'ancrage, en alliage d'aluminium, anodisées

Ta slovenski standard je istoveten z: **EN 3904:2017**

[SIST EN 3904:2018](https://standards.iteh.ai/catalog/standards/sist/4fb307d0-92e4-4a55-b476-01ce33985e86/sist-en-3904-2018)

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ICS:

49.025.20	Aluminij	Aluminium
49.030.50	Podložke in drugi blokirni elementi	Washers and other locking elements

SIST EN 3904:2018

en,fr,de

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EUROPEAN STANDARD
NORME EUROPÉENNE
EUROPÄISCHE NORM

EN 3904

November 2017

ICS 49.030.50

English Version

Aerospace series - Washers, wire locking in aluminium alloy, anodized

Série aérospatiale - Pattes d'ancrage, en alliage d'aluminium, anodisées

Luft- und Raumfahrt - Scheiben, Drahtsicherung aus Aluminiumlegierung, anodisiert

This European Standard was approved by CEN on 4 September 2017.

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 CEN-CENELEC 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 CEN-CENELEC Management Centre has the same status as the official versions.

CEN members are the national standards bodies of Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, Former Yugoslav Republic of Macedonia, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Romania, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and United Kingdom.

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

CEN-CENELEC Management Centre: Avenue Marnix 17, B-1000 Brussels

Contents		Page
European foreword		3
1	Scope	4
2	Normative references	4
3	Required characteristics	4
3.1	Configuration – Dimensions – Masses	4
3.2	Materials	4
3.3	Surface treatment	4
4	Designation	6
5	Marking	6
6	Quality assurance	6

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European foreword

This document (EN 3904:2017) 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 European 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 May 2018, and conflicting national standards shall be withdrawn at the latest by May 2018.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. CEN shall not be held responsible for identifying any or all such patent rights.

According to the CEN-CENELEC Internal Regulations, the national standards organizations of the following countries are bound to implement this European Standard: Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, Former Yugoslav Republic of Macedonia, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Romania, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and the United Kingdom.

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EN 3904:2017 (E)**1 Scope**

This European Standard specifies the characteristics of wire locking washers in aluminium alloy, anodized for maximum operating temperature 120 °C for aerospace applications.

2 Normative references

The following documents, in whole or in part, are normatively referenced in this document and are indispensable for its application. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

EN 2090, *Aerospace series - Aluminium alloy AL-P2024-T3 - Clad sheet and strip 0,3 mm <a <6 mm*

prEN 2091-001, *Aluminium Alloy AL-P13 PI - T4 - Clad Sheets And Strips* ¹⁾

prEN 2091-002, *Aluminium alloy 2024-T4 - Clad sheet and strip - 0,4 ≤ a ≤ 6 mm* ¹⁾

EN 2284, *Aerospace series - Sulphuric acid anodizing of aluminium and wrought aluminium alloys*

EN 2424, *Aerospace series - Marking of aerospace products*

EN 9100, *Quality Management Systems - Requirements for Aviation, Space and Defense Organizations*

3 Required characteristics

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3.1 Configuration – Dimensions – Masses

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See Figure 1 and Table 1. Dimensions and tolerances are expressed in millimetres and apply after surface treatment.

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3.2 Materials

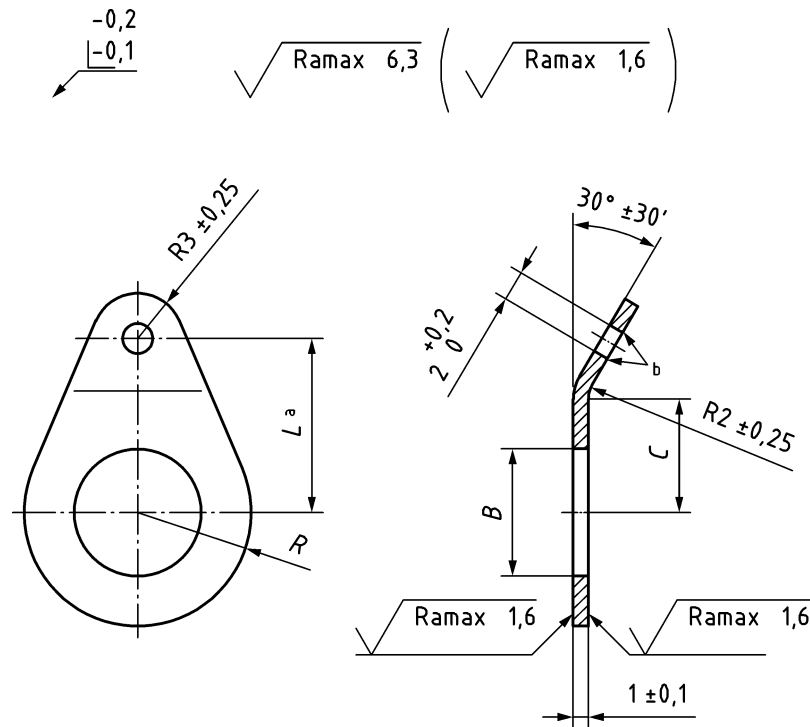
EN 2090 or prEN 2091-001 or prEN 2091-002.

3.3 Surface treatment

EN 2284.

Values in micrometres apply prior to surface treatment.

1) Published as ASD-STAN pre-standard at the date of publication of the present standard (www.asd-stan.org)

**Key**

- a before bending
b radiused

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Figure 1

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Table 1

Diameter code	B +0,2 0	C 0,25	L 0,25	R 0,25	Mass ^a
030	3,2	3	7	3	0,1
040	4,3	4	8	4	0,22
050	5,3	4,5	8,5	4,5	0,24
060	6,4	5,5	9,5	5,5	0,31
080	8,4	7,5	11,5	7,5	0,49
100	10,5	8	12	8	0,54
120	12,5	9,5	13,5	9,5	0,61
140	14,5	10,5	14,5	10,5	0,68

^a Approximate values (kg/1 000 pieces), calculated on the basis of 2,8 kg/dm³, for information purposes only.

EN 3904:2017 (E)**4 Designation**

EXAMPLE

	Description block	Identity block
	WIRE LOCK WASHER	<u>EN3904 - 080</u>
Number of this standard		
Diameter code (see Table 1)		

NOTE If necessary, the code I9005 shall be placed between the description block and the identity block.

5 Marking

EN 2424, style G.

6 Quality assurance

EN 9100.

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