SLOVENSKI STANDARD
kSIST FprEN 6081:2015

01-november-2015

Aeronavtika - Kovice, univerzalna glava, ozka toleranca - Colska izvedba

Aerospace series - Rivet, universal head, close tolerance - Inch series

Luft- und Raumfahrt - Vollniet, Universalkopf, enge Toleranz - Zoll-Reihe

Série aérospatiale - Rivets de précision, tête universelle - Série en inches

Ta slovenski standard je istoveten z: **FprEN 6081**

ICS:

49.030.60	Kovice	Rivets

kSIST FprEN 6081:2015 **en,fr,de**

EUROPEAN STANDARD

NORME EUROPÉENNE

EUROPÄISCHE NORM

FINAL DRAFT
FprEN 6081

October 2015

ICS

English Version

Aerospace series - Rivet, universal head, close tolerance - Inch series

Série aérospatiale - Rivets de précision, tête universelle - Série en inches

Luft- und Raumfahrt - Vollniet, Universalkopf, enge Toleranz - Zoll-Reihe

This draft European Standard is submitted to CEN members for formal vote. It has been drawn up by the Technical Committee ASD-STAN.

If this draft becomes a European Standard, 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.

This draft European Standard was established by CEN 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, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and United Kingdom.

Recipients of this draft are invited to submit, with their comments, notification of any relevant patent rights of which they are aware and to provide supporting documentation.

Warning : This document is not a European Standard. It is distributed for review and comments. It is subject to change without notice and shall not be referred to as a European Standard.

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

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

Ref. No. FprEN 6081:2015 E

Contents

European foreword

This document (FprEN 6081:2015) 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 document is currently submitted to the Formal Vote.

1 Scope

This European standard specifies the dimensions, tolerances and mass of rivets with universal head, close tolerance, inch series, for aerospace application.

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 2115, *Aerospace series — Aluminium alloy 2117-T4 — Wire for solid rivets — D ≤10 mm*[1)]

EN 2116, *Aerospace series — Aluminium alloy 2017A-H13 — Wire for solid rivets — D ≤10 mm*[2)]

EN 2117, *Aerospace series — Aluminium alloy 5056A-H32 — Wire for solid rivets — D ≤10 mm*[2)]

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

EN 3115, *Aerospace series — Aluminium alloy AL-P7050- — Wire for solid rivets — D ≤10 mm*[3)]

EN 6104, *Aerospace series — Rivets, solid, in aluminium or aluminium alloy — Inch series — Technical specification*[3)]

EN 6118, *Process specification — Aluminium base protection for fasteners*[1)]

ISO 8080, *Aerospace — Anodic treatment of titanium and titanium alloys — Sulfuric acid process*

AMS 4982, *Titanium alloy wire 44.5 Cb*[4)]

MIL-C-5541, *Chemical conversion coatings on aluminium and aluminium alloys*[5)]

NASM 5674, *Rivets, structural, aluminium alloy, titanium columbium alloy, general specification for*[6)]

3 Requirements

3.1 Configuration, dimensions, tolerances and mass

The configuration shall conform with Figure 1.

The dimensions, tolerances and mass shall conform with Figure 1 and Tables 1, 2 and 3.

Dimensions and tolerances are expressed in millimetres.

---

1) In preparation at the date of publication of this European standard.

2) Published as ASD-STAN standard at the date of publication of this European standard.

3) Published as ASD-STAN Prestandard at the date of publication of this European standard.

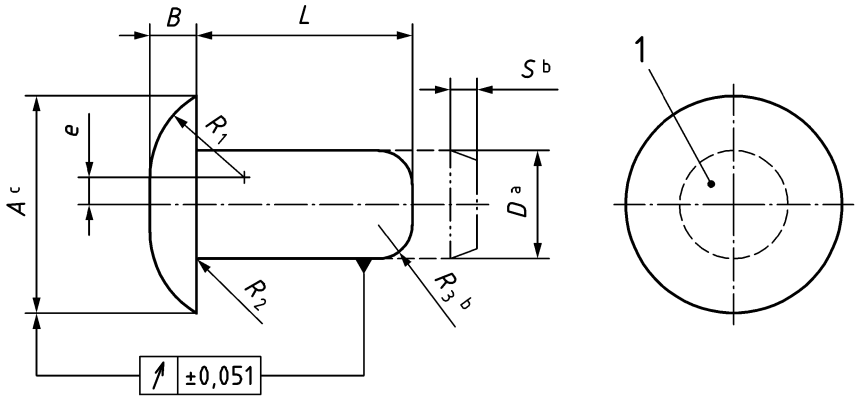
4) Published by: Society of Automotive Engineers (SAE), 400 Commonwealth Drive, Warrendale, PA 15096-0001.

5) Published by: Department of Defense(DoD), the Pentagon, Washington, D.C. 20301.

6) Published by: Aerospace Industries Association of America, Inc. (AIA), 1250 Eye Street, N.W., Washington, D.C. 20005-3924, USA

3.2 Material and surface treatment

See Table 3.



Key

1 Marking (see 5)

a 0,025mm shank diameter increase is permissible within 2,54 mm of the base of the head.

b Chamfered ends with radius to the R_3 dimensions or a 20° chamfer to "S" dimension.

c Maximum head diameters are to theoretical sharp corners as measured by projection.

Figure 1 — Configuration

Table 1

Diameter code	D Nominal diameter + 0,03 − 0,03	A max.	A min.	B + 0,25 0	e Ref.	R_1	R_2	R_3 ± 0,25	S ± 0,25
2	1,60	3,35	3,05	0,7	0,4	1,4	0,1 to 0,15	0,48	0,41
3	2,38	4,95	4,65	1,0	0,6	2,1		0,74	0,58
4	3,18	6,58	6,22	1,4	0,8	2,7		0,99	0,79
5	3,97	8,18	7,82	1,7	1,0	3,4		1,24	0,99
6	4,76	9,78	9,42	2	1,2	4,2		1,5	1,19
7	5,56	11,41	10,99	2,4	1,4	4,9		1,75	1,37
8	6,36	13,01	12,59	2,7	1,6	5,5		1,98	1,57
10	7,93	16,21	15,79	3,4	2,0	6,9		2,49	1,98
12	9,53	19,51	18,59	4,1	2,4	8,3		2,97	2,39

Table 2 — Length code and masses

Length [a] [b]		Diameter code								
		2	3	4	5	6	7	8	10	12
code	$L \pm 0{,}25$	Mass [c] kg/ 1 000 parts								
03	4,76	0,04	0,08	0,15	–	–	–	–	–	–
04	6,35	0,04	0,10	0,19	0,31	–	–	–	–	–
05	7,94	0,05	0,12	0,22	0,37	0,54	0,96	–	–	–
06	9,53	0,06	0,14	0,26	0,42	0,62	1,07	1,45	–	–
07	11,11	0,07	0,16	0,29	0,48	0,70	1,18	1,59	2,19	–
08	12,70	0,08	0,18	0,33	0,53	0,78	1,29	1,74	2,41	3,67
09	14,29	0,09	0,20	0,37	0,59	0,86	1,39	1,88	2,63	3,99
10	15,88	0,10	0,22	0,40	0,65	0,94	1,50	2,02	2,85	4,31
12	19,05	0,12	0,26	0,47	0,76	1,10	1,72	2,31	3,29	4,95
14	22,23	0,14	0,30	0,55	0,87	1,26	1,94	2,59	3,73	5,59
16	25,40	0,16	0,34	0,62	0,98	1,42	2,16	2,87	4,17	6,23
18	28,58	–	–	0,69	1,09	1,58	2,37	3,16	4,61	6,87
20	31,75	–	–	0,72	1,15	1,66	2,48	3,30	4,83	7,19
22	34,93	–	–	0,76	1,20	1,74	2,59	3,44	5,05	7,51
24	38,10	–	–	0,80	1,26	1,82	2,70	3,58	5,27	7,83
28	44,45	–	–	–	1,31	1,90	2,81	3,73	5,50	8,15
32	50,80	–	–	–	1,37	1,98	2,92	3,87	5,72	8,47
40	63,50	–	–	–	–	–	3,03	4,01	5,94	8,79
48	76,20	–	–	–	–	–	–	4,15	6,16	9,11

a Intermediate lengths can be created, e.g. 11/16 inch (11,2 mm) corresponds to length code 11.

b Additional 0,8 mm (1/32 inch) length increments may be obtained by adding code 5 after the last digit of part number.

c Mass = 2,79 kg/dm^3.