

SLOVENSKI STANDARD SIST EN 4710-001:2015

01-december-2015

Aeronavtika - Spončni sistemi za hitro sprostitev za nestrukturne aplikacije - 001. del: Tehnična specifikacija

Aerospace series - Quick release fastening systems for non-structural applications - Part 001: Technical specification

Luft- und Raumfahrt - Druckverschlüsse nicht-strukturelle Anwendungen - Teil 001: Technische Lieferbedingungen TANDARD PREVIEW

Série aérospatiale - Fixations rapides filetées pour applications non-structurales - Partie 001 : Spécification technique

https://standards.iteh.ai/catalog/standards/sist/354b8b6b-73ad-47c4-970c-

737fe9a21446/sist-en-4710-001-2015 Ta slovenski standard je istoveten z: EN 4710-01:2015

ICS:

49.030.01 Vezni elementi na splošno

Fasteners in general

SIST EN 4710-001:2015

en,fr,de



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<u>SIST EN 4710-001:2015</u> https://standards.iteh.ai/catalog/standards/sist/354b8b6b-73ad-47c4-970c-737fe9a21446/sist-en-4710-001-2015

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EUROPEAN STANDARD NORME EUROPÉENNE EUROPÄISCHE NORM

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Aerospace series - Quick release fastening systems for non-structural applications - Part 01: Technical specification

Série aérospatiale - Fixations rapides filetées pour applications non-structurales - Partie 01 : Spécification technique Luft- und Raumfahrt - Schnellverschlüsse für nichtstrukturelle Anwendungen - Teil 01: Technische Lieferbedingungen

This European Standard was approved by CEN on 5 March 2015.

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European foreword

This document (EN 4710-01:2015) 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 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of an identical text or by endorsement, at the latest by April 2016, and conflicting national standards shall be withdrawn at the latest by April 2016.

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.

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, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and the United Kingdom.

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1 Scope

This European Standard specifies the required characteristics, inspections, tests, quality assurance requirements, conditions for qualification acceptance and delivery of quick release fastening systems.

This European Standard applies to all fastening systems for use in fuselage interior equipment and nonstructural or secondary structural area.

It may be applied when referred to in the product standard or in a design specification.

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 2424, Aerospace series — Marking of aerospace products

EN 2826, Aerospace series — Burning behaviour of non metallic materials under the influence of radiating heat and flames — Determination of gas components in the smoke

EN 3844-2, Aerospace series — Flammability of non metallic materials — Part 2: Small burner test, horizontal — Determination of the horizontal flame propagation

EN 9100, Quality Management Systems – Requirements for Aviation, Space and Defense Organizations (standards.iten.al)

EN 9102:2006, Aerospace series — Quality systems — First article inspection <u>SIST EN 4710-001:2015</u>

EN 9133, Aerospace serieshtps:/Qualitysinanagementasystems/354bQualification4procedure for aerospace standard parts 737fe9a21446/sist-en-4710-001-2015

EN 10204, Metallic products — Types of inspection documents

EN ISO 8785, Geometrical product specification (GPS) — Surface imperfections — Terms, definitions and parameters (ISO 8785)

EN ISO 9001, Quality management systems — Requirements (ISO 9001)

EN ISO 9227, Corrosion tests in artificial atmospheres — Salt spray tests (ISO 9227)

FAR/JAR/CS 25.853, Compartment Interiors 1)

3 Terms and definitions

For the purposes of this document, the following terms and definitions apply.

3.1

fasteners

quick release fastening systems are parts, capable of being easily and quickly operated, with or without usage of special tools for closing and opening, for fastening and release of parts such as covers, linings, equipment, etc.

¹⁾ Published by: European Aviation Safety Agency, Postfach 101253, D-50452 Koeln, Germany.

3.2

lot

finished parts of the same dimensions, made from the same material, produced in the same production run, heat treated and surface protected in the same manner and submitted for testing at the same time

3.3

qualification test

a test or series of tests to demonstrate that the products comply with the requirements stipulated in this specification and/or in a product standard and are accomplished according to documented parameters and under reproducible conditions

3.4

acceptance test

a test or series of tests to demonstrate that the characteristics of manufactured products comply with the requirements

3.5

first article inspection FAI

complete, independent, and documented physical and functional inspection process to verify that prescribed production methods have produced an acceptable item as specified by engineering drawings, planning, purchase order, engineering specifications, and/or other applicable design documents

[SOURCE: EN 9102:2006, 3.5] **iTeh STANDARD PREVIEW (standards.iteh.ai)**

3.6

tolerance compensation

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ability of the spring clamp to cover assembly and installation tolerance3c4-970c-737fe9a21446/sist-en-4710-001-2015

4 Requirements

See Table 1, if not specified in the relevant product standard.

5 Inspections and tests

5.1 Qualification test

All product qualification activities shall be carried out in accordance with a Qualification Test Program prepared by the manufacturer and approved by the customer in accordance with EN 9133.

The satisfactory results of all tests, collected in a referenced Qualification Test Report, in accordance with EN 9133 or equivalent, shall be the basis of qualification for delivery to the customer.

The Qualification Test Report shall be carried out by the manufacturer's quality assurance department on a sample of parts that have been selected from a representative manufacturing batch. Similar parts may be used as a basis for qualification testing, and results formulated by analogy may be used providing prior agreement has been reached between the customer and the manufacturer. The nature and extent of further qualification tests have to be agreed upon separately between manufacturer and customer. The qualification procedure shall be accompanied by a mandated body who has to sign the QTP and QTR.

5.2 First article inspection

The manufacturer shall conduct a First Article Inspection on all initially manufactured parts, components, sub-assemblies and assemblies, as well as on the first complete manufacturing batch in accordance with accepted production practices and procedures. The vendor shall record the results of each First Article Inspection in an agreed report. The first components supplied to the customer shall be accompanied by a valid set of documentation and the First Article Inspection report. The vendor shall be informed in writing by the customer of any discrepancies that withhold approval.

5.3 Conformance/acceptance test

Unless otherwise specified, acceptance tests for each part shall be carried out by the manufacturer. The purpose of the acceptance test is to ensure conformity with specified requirements using approved testing methods. In cases where a manufacturer is not able to carry out the required tests due to the lack of suitable facilities or installations, they shall be carried out by suitable test facilities. The quantity of samples can be adjusted to respective production situation via inspection plan specification, i.e. at the discretion of the quality assurance management. This is based on continuous production monitoring according to the rules of statistical quality assurance. Changes to the acceptance test shall only be with written approval with the customer. Each delivery shall be accompanied by conformance test results and certified as defined in Table 1.

5.4 Requirements, inspections and tests

See Table 1.

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Clause	Characteristic	Requirements	Clause	Inspections and tests	A ^a	\boldsymbol{Q}^{b}
4.1	Materials	https://standards.iteh.ai/catalog/ In accordance with the specifications of the relevant product standards.	standards/ 6/sist_en-4	The chemical composition shall be evidenced, T.e. (by an 5 inspection certificate as per EN 10204 issued by the semi-finished product manufacturer.	Х	X
4.2	Dimensions and masses	In accordance with the relevant product standards.	5.4.2	The dimensions and masses have to be documented in accordance to EN 9102:2006.	Х	Х
4.3	Surface		5.4.3	Surface		
4.3.1	Surface defects	All surfaces shall be free from surface defects as defined in EN ISO 8785.	5.4.3.1	Visual examination as specified between customer and manufacturer	Х	X
4.3.2	Surface treatment	In accordance with the relevant product standards.	5.4.3.2	The surface treatment as applied shall be substantiated, i.e. by an inspection certificate as per EN 10204.	Х	Х

Table 1 — Requirements, inspections and tests (1 of 3)

Clause	Characteristic	Requirements	Clause	Inspections and tests	A a	Q ^b
4.4	Mechanical properties 5.4.4 Mechanical properties		•			
4.4.1	Ultimate tensile loads	In accordance with the relevant product standards.	5.4.4.1	According to 6.1.	_	x
4.4.2	Ultimate shear loads	In accordance with the relevant product standards. (standards SIST EN 4710- /standards itch ai/catabo/standards	D ₄ A ₂ .iteh	REVIEW -	_	x
4.4.3	Push-in load	737fe9a21446/sist-en- There shall be no permanent deformation after applying the loads specified in the relevant product standards.	5.4.4.3	-2015	_	X

Table 1 — Requirements, inspections and tests (2 of 3)	Table 1 — Requirements,	inspections and tes	sts (2	of 3)
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