

## SLOVENSKI STANDARD SIST EN 2070-6:2001

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Aerospace series - Aluminium and aluminium alloy wrought products - Technical specification - Part 6: Rivet wire

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Luft- und Raumfahrt - Halbzeug aus Aluminium und Aluminium-Knetlegierungen - Technische Lieferbedingungen Teil 6: Nietdrähte

Série aérospatiale - Demi-produits corroyés en aluminium et alliages d'aluminium - Spécification technique - Partie 6: Fils a rivets 770-6:2001

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# EUROPEAN STANDARD NORME EUROPÉENNE EUROPÄISCHE NORM

**EN 2070** 

Part 6

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defects, mechanical tests, cold-working

#### **English version**

Aerospace series
Aluminium and aluminium
alloy wrought products
Technical specification
Part 6: Rivet wire

Série aérospatiale

Demi-produits corroyés

en aluminium et alliages d'aluminium RD PRE Valuminium-Knetlegierungen

Spécification technique

Partie 6 : Fils à Sivets dards.iteh.ai)

Luft- und Raumfahrt

Halbzeug aus Aluminium und

Valuminium-Knetlegierungen

Technische Lieferbedingungen

Teil 6 : Nietdrähte

#### SIST EN 2070-6:2001

This European Standard was accepted by CEN on 1988-07-20. CEN members are bound to comply with the requirements of CEN 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 Central Secretariat 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 CEN Central Secretariat has the same status as the official versions.

CEN members are the national standards organizations of Austria, Belgium, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Luxemburg, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland and United Kingdom.

### CEN

European Committee for Standardization Comité Européen de Normalisation Europäisches Komitee für Normung

Central Secretariat : Rue Bréderode 2, B-1000 Bruxelles

#### **Brief history**

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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 successively received the approval of the National Associations and the Official Services of the member countries of AECMA, prior to its presentation to CEN.

According to the Common CEN/CENELEC Rules, the following countries are bound to implement this European Standard: Austria, Belgium, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Luxemburg, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland and United Kingdom.

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#### 1 Scope and field of application

The present standard specifies the particular requirements for aluminium and aluminium alloy wire intended for rivet manufacture.

This standard shall be used in conjunction with EN 2070-1.

#### 2 References

ISO/R 2101-1971, Aluminium and aluminium alloys - Shear test for rivet wire and rivets.

EN 2002-1, Aerospace series - Test methods for metallic materials - Part 1 - Tensile test at ambient temperature 1)

EN 2070-1, Aerospace series - Aluminium and aluminium alloy wrought products - Technical specification - Part 1 - General

## iTen STANDARD PREVIEW

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3 Batch size

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#### 4 Dimensions

Dimensions and tolerances shall conform to the relevant semi-finished product standard.

The frequency of examination adopted by the manufacturer shall be sufficient to permit him to certify compliance with the requirements.

<sup>1)</sup> In preparation

#### 5 External defects

Visual surface inspection shall be carried out at a frequency sufficient to permit the manufacturer to certify compliance with the requirements of this clause.

The wire shall be clean and smooth and free from defects such as drawing scores, die pick-up, indentations, cracks or corrosion considered harmful to its use.

#### 6 Mechanical testing

Wire shall be submitted to either the tensile test in accordance with EN 2002-1 or the shear test, in accordance with ISO/R 2101 at the option of the manufacturer in the condition of supply and/or use as required by the material standard.

The frequency of testing is given in table 1.

The values obtained shall meet the requirements of the material standard. Regardless of the type of test carried out the wire shall be capable of meeting the tensile test and shear test values required by the material standard.

Re-testing procedure for shear testing shall be as EN 2070-1 "Tensile re-tests". https://standards.iteh.ai/catalog/standards/sist/7338b809-9f48-4a60-b13f-224a912f46de/sist-en-2070-6-2001

#### 7 Suitability for cold heading

The quality of the wire shall be such that cold headed rivet shapes can be produced without developing cracks, or general or localized excessive grain growth after heat treatment.

Evaluation of forming capability shall be accomplished, for example, by some type of torsion test or a cold heading test or such other tests as may be agreed between the manufacturer and purchaser.

The frequency of examination adopted by the manufacturer shall be sufficient to permit him to certify compliance with the requirements.

#### 8 Special tests

Special tests and inspections may be required by the purchaser. In such cases, after agreement between purchaser and manufacturer, nature of the tests, methods, number and acceptance standards shall be specified on the order or in the inspection schedule.

#### 9 Marking

A durable label attached to each coil or bundle shall bear the information required by EN 2070-1 (Clause 10.1) in addition to the following:

- wire diameter,
- weight of coil or bundle in kg.

If special tests in accordance with clause 8 are required the marking shall be defined and shall reflect these extra requirements.

The frequency of examination adopted by the manufacturer shall be sufficient to permit him to certify compliance with the requirements.

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Table 1 — Summary of requirements for rivet wire

Requirements	Clause	Praduct		Inspection/Testing	sting
•			bs://star	Standard	Frequency
Dimensions	4	All products			See clause 4
External defects	9	All products	S	I	See clause 5
Mechanical tests	9	Products in the condition :	dards.it	EN 2002-1 or ISO/R 2101	2 tests per batch (from different coils or bundles
			eh.ai	en 2002-1 or ISO/R 2101	ii more man one).
Suitability for cold heading	7	All products		See clause 7	
Marking	6	All products	Nznal		See clause 9
*) « Aluminum Association » designation.	» designation.				