SLOVENSKI STANDARD
SIST EN 2543:2009

01-maj-2009

Aeronavtika - Jeklo FE-PL1502 (25CrMo4) - Ąarjeno - Ploļ evina in trakovi - 0,3 mm Òa Ò2 mm - Za pritrditvene matice

Aerospace series - Steel FE-PL1502 (25CrMo4) - Annealed - Sheet and strip - 0,3 mm Ò a Ò2 mm - For prevailing torque nuts

Luft- und Raumfahrt - Stahl FE-PL1502 (25CrMo4) - Gegl¿ht - Bleche und Bª nder - 0,3 mm Òa Ò2 mm - F¿r klemmende Sicherungsmuttern

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S®rie a®rospatiale - Acier FE-PL1502 (25CrMo4) - Recuit - T¹ les et bandes - 0,3 mm Òa Ò2 mm - Pour ®crous ¨ freinage interne par d®formation

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Ta slovenski standard je istoveten z: **EN 2543:2009**

ICS:

49.025.10	Jekla	Steels

SIST EN 2543:2009 **en**

2003-01.Slovenski inštitut za standardizacijo. Razmnoževanje celote ali delov tega standarda ni dovoljeno.

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EUROPEAN STANDARD

NORME EUROPÉENNE

EUROPÄISCHE NORM

EN 2543

March 2009

ICS 49.025.10

English Version

Aerospace series - Steel FE-PL1502 (25CrMo4) - Annealed - Sheet and strip - 0,3 mm ≤ a ≤ 2 mm - For prevailing torque nuts

Série aérospatiale - Acier FE-PL1502 (25CrMo4) - Recuit - Tôles et bandes - 0,3 mm ≤ a ≤ 2 mm - Pour écrous à freinage interne par déformation

Luft- und Raumfahrt - Stahl FE-PL1502 (25CrMo4) - Geglüht - Bleche und Bänder - 0,3 mm ≤ a ≤ 2 mm - Für klemmende Sicherungsmuttern

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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 Management Centre has the same status as the official versions.

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

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Foreword

This document (EN 2543:2009) 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 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 September 2009, and conflicting national standards shall be withdrawn at the latest by September 2009.

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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.

This standard has been prepared in accordance with EN 4500-5.

1 Scope

This standard specifies the requirements relating to:

Steel FE-PL1502 (25CrMo4)
Annealed
Sheet and strip
0,3 mm ≤ a ≤ 2 mm
For prevailing torque nuts

for aerospace applications.

2 Normative references

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

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EN 2033, *Aerospace series — Strips, cold rolled in steel — Thickness 0,1 mm ≤ a ≤ 2,5 mm — Dimensions.* [1)]

EN 2600, *Aerospace series — Designation of metallic semi-finished products — Rules.* **Error! Bookmark not defined.**)

EN 4258, *Aerospace series — Metallic materials — General organization of standardization — Links between types of EN standards and their use.*

EN 4500-5, *Aerospace series — Metallic materials — Rules for drafting and presentation of material standards — Part 5: Specific rules for steels.* **Error! Bookmark not defined.**)

EN 4700-1, *Aerospace series — Steel and heat resisting alloys — Wrought products — Technical specification — Part 1: Plate, sheet and strip.* [2)]

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1) Published as ASD Standard at the date of publication of this standard.

2) Published as ASD Prestandard at the date of publication of this standard.

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1	Material designation		Steel FE-PL1502 (25CrMo4)								
2	Chemical composition %	Element	C	Si	Mn	P	S	Cr	Mo	Ni	Fe
		min.	0,22	0,10	0,50	–	–	0,90	0,15	–	Base
		max.	0,29	0,35	0,80	0,020	0,015	1,20	0,25	0,30	
3	Method of melting		Air melted								
4.1	Form		Sheet and strip								
4.2	Method of production		–								
4.3	Limit dimension(s)	mm	0,3 ≤ a ≤ 2								
5	Technical specification		EN 4700-1								

6.1	Delivery condition	Annealed
	Heat treatment	–
6.2	Delivery condition code	U
7	Use condition	Delivery condition
	Heat treatment	–

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Characteristics

8.1	Test sample(s)				See EN 4700-1.	
8.2	Test piece(s)				–	
8.3	Heat treatment				Annealed	Reference on a washer a ≤ 2 mm (see line 95)
9	Dimensions concerned			mm	0,3 ≤ a ≤ 2	–
10	Thickness of cladding on each face			%	–	
11	Direction of test piece				–	
12	T	Temperature	θ	°C	Ambient	
13		Proof stress	$R_{p0,2}$	MPa*	–	
14		Strength	R_m	MPa*	–	
15		Elongation	A	%	–	
16		Reduction of area	Z	%	–	
17	Hardness				HV5 ≤ 150	390 ≤ HV5 ≤ 430
18	Shear strength		R_c	MPa*	–	
19	Bending		k	–	–	
20	Impact strength				–	
21	C	Temperature	θ	°C	–	
22		Time		h	–	
23		Stress	σ_a	MPa*	–	
24		Elongation	a	%	–	
25		Rupture stress	σ_R	MPa*	–	
26		Elongation at rupture	A	%	–	
27	Notes (see line 98)				*	

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29	Reference heat treatment	–	Step quenched in a salt bath 850 °C ≤ θ ≤ 860 °C + Salt bath quenched θ ≥ 365°C / AC or other equivalent heat treatment
44	External defects	–	See EN 4700-1.
59	Carburization and decarburization	–	See EN 4700-1.
		5	See line 29.
		7	The material shall be free from carburization. Total decarburization shall not be present and partial decarburization shall not exceed 5 % of the thickness on each face with a maximum depth of 0,2 mm on each face.
95	Marking inspection	–	See EN 4700-1.
96	Dimensional inspection	–	See EN 2033.
97	Designation	–	The rules governing the designation of semi-finished products are indicated in standard EN 2600. When the codified designation is used, the identification code shall be as follows: **EN2543 U XX --------** Material standard number Letter code (see 6.2) Appropriate dimensional standard code (see 5.3) Data concerning dimension (see EN 2600)
98	Notes	–	* 1 MPa = 1 N/mm^2.
99	Typical use	–	Low alloy steel for nuts.

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100	–	Product qualification	–	–
				Qualification programme to be agreed between manufacturer and purchaser.

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