

**Aerospace series - Steel FE-PM 3504
(X4CrNiMo16-5-1) - Air melted - Hardened and
tempered - Bar - $D_e \leq 200$ mm - $900 \text{ MPa} \leq R_m$
 $\leq 1\,050 \text{ Mpa}$**

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EESTI STANDARDI EESSÕNA**NATIONAL FOREWORD**

Käesolev Eesti standard EVS-EN 4631:2008 sisaldab Euroopa standardi EN 4631:2007 ingliskeelset teksti. Standard on kinnitatud Eesti Standardikeskuse 30.01.2008 käskkirjaga ja jõustub sellekohase teate avaldamisel EVS Teatajas. Euroopa standardimisorganisatsioonide poolt rahvuslikele liikmetele Euroopa standardi teksti kättesaadavaks tegemise kuupäev on 19.12.2007. Standard on kättesaadav Eesti standardiorganisatsioonist.	This Estonian standard EVS-EN 4631:2008 consists of the English text of the European standard EN 4631:2007. This standard is ratified with the order of Estonian Centre for Standardisation dated 30.01.2008 and is endorsed with the notification published in the official bulletin of the Estonian national standardisation organisation. Date of Availability of the European standard text 19.12.2007. The standard is available from Estonian standardisation organisation.
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ICS 49.025.10**Võtmesõnad:****Standardite reprodutseerimis- ja levitamiseõigus kuulub Eesti Standardikeskusele**

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ICS 49.025.10

English Version

**Aerospace series - Steel FE-PM 3504 (X4CrNiMo16-5-1) - Air
melted - Hardened and tempered - Bar - $De \leq 200$ mm - 900
MPa $\leq R_m \leq 1\,050$ MPa**

Série aérospatiale - Acier FE-PM 3504 (X4CrNiMo16-5-1) -
Élaboré à l'air - Trempé et revenu - Barres - $De \leq 200$ mm -
900 MPa $\leq R_m \leq 1\,050$ MPa

Luft- und Raumfahrt - Stahl FE-PM 3504 (X4CrNiMo16-5-1)
- Luftserschmolzen - Gehärtet- und angelassen - Stangen -
 $De \leq 200$ mm - 900 MPa $\leq R_m \leq 1\,050$ MPa

This European Standard was approved by CEN on 23 June 2007.

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 Management Centre or to any CEN member.

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

Management Centre: rue de Stassart, 36 B-1050 Brussels

Foreword

This document (EN 4631:2007) 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 June 2008, and conflicting national standards shall be withdrawn at the latest by June 2008.

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.

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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-PM 3504 (X4CrNiMo16-5-1)
 Air melted
 Hardened and tempered
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 $900 \text{ MPa} \leq R_m \leq 1\,050 \text{ MPa}$

for aerospace applications.

2 Normative references

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.

EN 2002-8, *Aerospace series — Metallic materials — Test methods — Part 8: Micrographic determination of grain size*. ¹⁾

EN 2043, *Aerospace series — Metallic materials — General requirements for semi-finished product qualification (excluding forgings and castings)*. ¹⁾

EN 2951, *Aerospace series — Metallic materials — Test method — Micrographic determination of content of non-metallic inclusions*. ¹⁾

EN 4050-4, *Aerospace series — Test method for metallic materials — Ultrasonic inspection of bars, plates, forging stock and forgings — Part 4: Acceptance criteria*. ¹⁾

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*. ¹⁾

EN 4700-2, *Aerospace series — Steel and heat resisting alloys — Wrought products — Technical specification — Part 2: Bar and section*. ¹⁾

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