

Aerospace series - Titanium alloy TI-P64001
(Ti-6Al-4V) - Annealed - Bars for machining - $D \leq 300$
mm - $900 \text{ MPa} \leq R_m \leq 1\,160 \text{ MPa}$

EESTI STANDARDI EESSÕNA

NATIONAL FOREWORD

See Eesti standard EVS-EN 3311:2023 sisaldab Euroopa standardi EN 3311:2023 ingliskeelset teksti. Standard on jõustunud sellekohase teate avaldamisega EVS Teatajas. Euroopa standardimisorganisatsioonid on teinud Euroopa standardi rahvuslikele liikmetele kättesaadavaks 20.12.2023. Standard on kättesaadav Eesti Standardimis-ja Akrediteerimiskeskusest.	This Estonian standard EVS-EN 3311:2023 consists of the English text of the European standard EN 3311:2023. This standard has been endorsed with a notification published in the official bulletin of the Estonian Centre for Standardisation and Accreditation. Date of Availability of the European standard is 20.12.2023. The standard is available from the Estonian Centre for Standardisation and Accreditation.
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ICS 49.025.30

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English Version

**Aerospace series - Titanium alloy TI-P64001 (Ti-6Al-4V) -
Annealed - Bars for machining - $D \leq 300$ mm - $900 \text{ MPa} \leq$
 $R_m \leq 1\,160 \text{ MPa}$**

Série aérospatiale - Alliage de titane TI-P64001 (Ti-6Al-4V) - Recuit - Barres pour usinage - $D \leq 300$ mm - $900 \text{ MPa} \leq R_m \leq 1\,160 \text{ MPa}$

Luft- und Raumfahrt - Titanlegierung TI-P64001 (Ti-6Al-4V) - Geglüht - Stangen zum Zerspanen - $D \leq 300$ mm - $900 \text{ MPa} \leq R_m \leq 1\,160 \text{ MPa}$

This European Standard was approved by CEN on 15 October 2023.

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-CENELEC Management Centre 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 the CEN-CENELEC 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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European foreword

This document (EN 3311:2023) 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 document has received the approval of the National Associations and the Official Services of the member countries of ASD-STAN, prior to its presentation to CEN.

This document shall be given the status of a national standard, either by publication of an identical text or by endorsement, at the latest by June 2024, and conflicting national standards shall be withdrawn at the latest by June 2024.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. CEN shall not be held responsible for identifying any or all such patent rights.

This document supersedes EN 3311:2010.

Compared with EN 3311:2010, the following changes have been made:

— diameters of bars have been increased from 100 mm up to 300 mm.

According to the CEN-CENELEC Internal Regulations, the national standards organizations of the following countries are bound to implement this document: Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Republic of North Macedonia, Romania, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Türkiye and the United Kingdom.

Introduction

This document 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 document has been prepared in accordance with EN 4500-004.

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1 Scope

This document specifies the requirements relating to:

Titanium alloy TI-P64001 (Ti-6Al-4V)

Annealed

Bars for machining

$D \leq 300 \text{ mm}$

$900 \text{ MPa} \leq R_m \leq 1\,160 \text{ MPa}$

for aerospace applications.

2 Normative references

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements 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 2954-002, *Aerospace series — Macrostructure of titanium and titanium alloy wrought products — Part 002: Macrostructure of bar, section, forging stock and forgings*

EN 3114-002, *Aerospace series — Test method — Microstructure of ($\alpha + \beta$) titanium alloy wrought products — Part 002: Microstructure of bars, sections, forging stock and forgings*

EN 4050-1, *Aerospace series — Test method for metallic materials — Ultrasonic inspection of bars, plates, forging stock and forgings — Part 1: General requirements*

EN 4267, *Aerospace series — Round bars in titanium and titanium alloys — Diameter $6 \text{ mm} \leq D \leq 160 \text{ mm}$ — Dimensions*

EN 4800-002, *Aerospace series — Titanium and titanium alloys — Technical specification — Part 002: Bar and section*

3 Terms and definitions

No terms and definitions are listed in this document.

ISO and IEC maintain terminological databases for use in standardization at the following addresses:

- ISO Online browsing platform: available at <https://www.iso.org/obp>
- IEC Electropedia: available at <https://www.electropedia.org/>

4 Requirements

According to Table 1.