

Aerospace series - Steel X5CrNiCu17-4 (1.4542) - Air
melted - Solution treated and precipitation treated -
Forgings - a or D $\leq$ 200 mm - Rm $\geq$ 1 310 MPa

EESTI STANDARDI EESSÕNA

NATIONAL FOREWORD

See Eesti standard EVS-EN 3677:2025 sisaldab Euroopa standardi EN 3677:2025 ingliskeelset teksti. Standard on jõustunud sellekohase teate avaldamisega EVS Teatajas. Euroopa standardimisorganisatsioonid on teinud Euroopa standardi rahvuslikele liikmetele kättesaadavaks 03.12.2025. Standard on kättesaadav Eesti Standardimis-ja Akrediteerimiskeskusest.	This Estonian standard EVS-EN 3677:2025 consists of the English text of the European standard EN 3677:2025. 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 03.12.2025. The standard is available from the Estonian Centre for Standardisation and Accreditation.
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ICS 49.025.10

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English Version

**Aerospace series - Steel X5CrNiCu17-4 (1.4542) - Air
melted - Solution treated and precipitation treated -
Forgings - a or D $\leq$ 200 mm - Rm $\geq$ 1 310 MPa**

Série aérospatiale - Acier X5CrNiCu17-4 (1.4542) -
Élaboré à l'air - Mis en solution et précipité - Pièces
forgées ou matricées - a ou D $\leq$ 200 mm - Rm $\geq$ 1
310 Mpa

Luft- und Raumfahrt - Stahl X5CrNiCu17-4 (1.4542) -
Lufterschmolzen - Lösungsgeglüht und
ausscheidungsgehärtet - Schmiedestücke - a oder D $\leq$
200 mm - Rm $\geq$ 1 310 MPa

This European Standard was approved by CEN on 5 October 2025.

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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-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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Contents		Page
European foreword		3
Introduction		4
1	Scope.....	5
2	Normative references.....	5
3	Terms and definitions	5
4	Requirements.....	5
Bibliography		9

European foreword

This document (EN 3677:2025) has been prepared by 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 2026, and conflicting national standards shall be withdrawn at the latest by June 2026.

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 3677:2007.

EN 3677:2025 includes the following significant technical changes with respect to EN 3677:2007:

- update of the material designation;
- correction of the format of Table 1 to comply with the requirements of the EN 4500 series;
- update of Clause 2;
- addition of a bibliography.

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 4500-005.

1 Scope

This document specifies the requirements relating to:

Steel X5CrNiCu17-4 (1.4542)
Air melted
Solution treated and precipitation treated
Forgings
 a or $D \leq 200$ mm
 $R_m \geq 1\,310$ MPa

for aerospace applications.

W.nr: 1.4542.

ASD-STAN designation: FE-PM3801.

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 2951, *Aerospace series — Metallic materials — Micrographic determination of content of non-metallic inclusions*

EN 3163,¹ *Aerospace series — Steel X5CrNiCu17-4 (1.4542) — Air melted — Softened — Forging stock — a or $D \leq 300$ mm*

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

EN 4700-006, *Aerospace series — Steel and heat resisting alloys — Wrought products — Technical specification — Part 006: Pre-production and production forgings*

3 Terms and definitions

No terms and definitions are listed in this document.

ISO and IEC maintain terminology 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

The requirements of Table 1 shall be applied.

The documents listed in Table 1 shall be applied.

¹ Published as ASD-STAN prEN at the date of publication of this document, available at: <https://www.asd-stan.org/>.