

TERASEST SEPISED ÜLDISEKS INSENERTEHNILISEKS
OTSTARBEKS. OSA 3: LEGEERITUD ERITERASED

Open die steel forgings for general engineering
purposes - Part 3: Alloy special steels

EESTI STANDARDI EESSÕNA

NATIONAL FOREWORD

See Eesti standard EVS-EN 10250-3:2022 sisaldab Euroopa standardi EN 10250-3:2022 ingliskeelset teksti.	This Estonian standard EVS-EN 10250-3:2022 consists of the English text of the European standard EN 10250-3:2022.
Standard on jõustunud sellekohase teate avaldamisega EVS Teatajas.	This standard has been endorsed with a notification published in the official bulletin of the Estonian Centre for Standardisation and Accreditation.
Euroopa standardimisorganisatsioonid on teinud Euroopa standardi rahvuslikele liikmetele kättesaadavaks 30.03.2022.	Date of Availability of the European standard is 30.03.2022.
Standard on kättesaadav Eesti Standardimis-ja Akrediteerimiskeskusest.	The standard is available from the Estonian Centre for Standardisation and Accreditation.

Tagasisidet standardi sisu kohta on võimalik edastada, kasutades EVS-i veebilehel asuvat tagasiside vormi või saates e-kirja meiliaadressile standardiosakond@evs.ee.

ICS 77.140.20, 77.140.85

Standardite reprodutseerimise ja levitamise õigus kuulub Eesti Standardimis- ja Akrediteerimiskeskusele. Andmete paljundamine, taastekitamine, kopeerimine, salvestamine elektroonsesse süsteemi või edastamine ükskõik millises vormis või millisel teel ilma Eesti Standardimis- ja Akrediteerimiskeskuse kirjaliku loata on keelatud.

Kui Teil on küsimusi standardite autorikaitse kohta, võtke palun ühendust Eesti Standardimis- ja Akrediteerimiskeskusega: Koduleht www.evs.ee; telefon 605 5050; e-post info@evs.ee

The right to reproduce and distribute standards belongs to the Estonian Centre for Standardisation and Accreditation

No part of this publication may be reproduced or utilized in any form or by any means, electronic or mechanical, including photocopying, without a written permission from the Estonian Centre for Standardisation and Accreditation.

If you have any questions about copyright, please contact Estonian Centre for Standardisation and Accreditation:

Homepage www.evs.ee; phone +372 605 5050; e-mail info@evs.ee

EUROPEAN STANDARD

EN 10250-3

NORME EUROPÉENNE

EUROPÄISCHE NORM

March 2022

ICS 77.140.20; 77.140.85

Supersedes EN 10250-3:1999

English Version

Open die steel forgings for general engineering purposes - Part 3: Alloy special steels

Pièces forgées en acier pour usage général - Partie 3:
Aciers spéciaux alliés

Freiformschmiedestücke aus Stahl für allgemeine
Verwendung - Teil 3: Legierte Edelmehle

This European Standard was approved by CEN on 14 February 2022.

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.

CEN members are the national standards bodies of 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, Turkey and United Kingdom.



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

CEN-CENELEC Management Centre: Rue de la Science 23, B-1040 Brussels

Contents		Page
European foreword		3
1	Scope	4
2	Normative references	4
3	Terms and definitions	4
4	Chemical composition	4
4.1	Cast analysis	4
4.2	Product analysis	4
5	Heat treatment	4
6	Mechanical properties	4
Annex A (informative) Heat treatment		9
Bibliography		10

European foreword

This document (EN 10250-3:2022) has been prepared by Technical Committee CEN/TC 459 “ECISS - European Committee for Iron and Steel Standardization”¹, the secretariat of which is held by AFNOR.

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 2022, and conflicting national standards shall be withdrawn at the latest by September 2022.

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 10250-3:1999.

In comparison with the previous edition, the following technical modifications have been made:

— updating of normative references.

EN 10250, *Open die steel forgings for general engineering purposes*, consists of the following parts:

- *Part 1: General requirements;*
- *Part 2: Non-alloy quality and special steels;*
- *Part 3: Alloy special steels;*
- *Part 4: Stainless steels.*

Any feedback and questions on this document should be directed to the users' national standards body. A complete listing of these bodies can be found on the CEN website.

According to the CEN-CENELEC Internal Regulations, the national standards organisations of the following countries are bound to implement this European Standard: 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, Turkey and the United Kingdom.

¹ Through its sub-committee SC 11 “Steel castings and forgings” (secretariat: AFNOR).

1 Scope

This document specifies the technical delivery requirements for open die forgings, forged bars and products pre-forged and finished in ring rolling mills, manufactured from alloy special steel and supplied in the quenched and tempered condition.

The majority of steels listed in this document are identical to steels specified in EN ISO 683-1 and EN ISO 683-2 and more extensive information on hardenability and technological properties is given in these standards.

General information on technical delivery conditions is given in EN 10021.

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 10250-1:2022, *Open die steel forgings for general engineering purposes - Part 1: General requirements*

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:

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

4 Chemical composition

4.1 Cast analysis

The chemical composition of the steel shall be determined by cast analysis and shall conform to the analysis given in Table 1 (see EN 10250-1:2022, A.7 and A.8).

Measures should be taken to prevent the addition from the scrap, or other material used in the manufacture of the steels, of such elements which affect the hardenability, mechanical properties and applicability of the steel.

4.2 Product analysis

The product analysis shall not deviate from the specified cast analysis (see Table 1) by more than the values specified in Table 2 (see EN 10250-1:2022, 9.2).

5 Heat treatment

Heat treatment details are given in Annex A, Table A.1 for guidance.

6 Mechanical properties

The mechanical properties determined on test pieces selected, prepared and tested in accordance with EN 10250-1:2022, Clauses 11 and 12 shall conform to the property requirements given in Table 3.