

Surveotstarbelised roostevabad terasvardad

Stainless steel bars for pressure purposes

EESTI STANDARDI EESSÕNA

NATIONAL FOREWORD

Käesolev Eesti standard EVS-EN 10272:2007 sisaldab Euroopa standardi EN 10272:2007 ingliskeelset teksti.	This Estonian standard EVS-EN 10272:2007 consists of the English text of the European standard EN 10272:2007.
Käesolev dokument on jõustatud 22.11.2007 ja selle kohta on avaldatud teade Eesti standardiorganisatsiooni ametlikus väljaandes.	This document is endorsed on 22.11.2007 with the notification being published in the official publication of the Estonian national standardisation organisation.
Standard on kättesaadav Eesti standardiorganisatsioonist.	The standard is available from Estonian standardisation organisation.

Käsitlusala: This document specifies the technical delivery conditions for hot and cold formed stainless steel bars for the construction of pressure equipment supplied in accordance with one of the process routes and surface finishes listed in Table 5. The general technical delivery conditions in EN 10021 also apply. NOTE Once this European Standard is published in the EU Official Journal (OJEU) under Directive 97/23/EC, presumption of conformity to the Essential Safety Requirements (ESRs) of Directive 97/23/EC is limited to technical data of materials in this European Standard and does not presume adequacy of the material to a specific item of equipment. Consequently, the assessment of the technical data stated in this material standard against the design requirements of this specific item of equipment to verify that the ESRs of Directive 97/23/EC are satisfied, needs to be done.	Scope: This document specifies the technical delivery conditions for hot and cold formed stainless steel bars for the construction of pressure equipment supplied in accordance with one of the process routes and surface finishes listed in Table 5. The general technical delivery conditions in EN 10021 also apply. NOTE Once this European Standard is published in the EU Official Journal (OJEU) under Directive 97/23/EC, presumption of conformity to the Essential Safety Requirements (ESRs) of Directive 97/23/EC is limited to technical data of materials in this European Standard and does not presume adequacy of the material to a specific item of equipment. Consequently, the assessment of the technical data stated in this material standard against the design requirements of this specific item of equipment to verify that the ESRs of Directive 97/23/EC are satisfied, needs to be done.
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English Version

Stainless steel bars for pressure purposes

Barres en acier inoxydable pour appareils à pression

Stäbe aus nichtrostendem Stahl für Druckbehälter

This European Standard was approved by CEN on 23 August 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.

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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Inhalt

Page

Foreword	3
1 Scope	4
2 Normative references	4
3 Terms and definitions	5
4 • Dimensions and tolerances on dimensions	5
5 Calculation of mass	5
6 Classification and designation	5
6.1 Classification	5
6.2 Designation	6
7 Information to be supplied by the purchaser	6
7.1 Mandatory information	6
7.2 Options	6
8 Requirements	7
8.1 Steelmaking process	7
8.2 • Delivery condition	7
8.3 Chemical composition	7
8.4 Corrosion resistance	7
8.5 Mechanical properties	8
8.6 Surface quality	8
8.7 Internal soundness	8
9 Inspection	8
9.1 Types of inspection and inspection documents	8
9.2 Tests to be carried out	9
9.3 Frequency of testing	9
9.4 Re-tests, sorting and reprocessing	9
9.5 Sampling and preparation of samples and test pieces	9
9.6 Test methods	9
10 Marking	10
Annex A (informative) Guidelines for further treatment (including heat treatment) in fabrication	28
Annex B (informative) Preliminary reference data for the tensile strength of austenitic-ferritic steels at elevated temperatures	32
Annex C (informative) Reference data of strength values for creep rupture	33
Annex ZA (informative) Relationship between this European Standard and the Essential Requirements of EU Directive 97/23/EC	34
Bibliography	35

Foreword

This document (EN 10272:2007) has been prepared by Technical Committee ECISS/TC 22 "Steels for pressure purposes - Qualities", the secretariat of which is held by DIN.

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 April 2008, and conflicting national standards shall be withdrawn at the latest by April 2008.

This document supersedes EN 10272:2000.

This document has been prepared under a mandate given to CEN by the European Commission and the European Free Trade Association, and supports essential requirements of EU Directive 97/23/EC.

For relationship with EU Directive 97/23/EC, see informative Annex ZA, which is an integral part of this document.

NOTE The clauses marked with a point (●) contain information relating to agreements which are to be made at the time of enquiry and order. The clauses marked by two points (●●) contain information relating to agreements that may be made at the time of enquiry and order.

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

1 Scope

This document specifies the technical delivery conditions for hot and cold formed stainless steel bars for the construction of pressure equipment supplied in accordance with one of the process routes and surface finishes listed in Table 5.

The general technical delivery conditions in EN 10021 also apply.

NOTE Once this European Standard is published in the EU Official Journal (OJEU) under Directive 97/23/EC, presumption of conformity to the Essential Safety Requirements (ESRs) of Directive 97/23/EC is limited to technical data of materials in this European Standard and does not presume adequacy of the material to a specific item of equipment. Consequently, the assessment of the technical data stated in this material standard against the design requirements of this specific item of equipment to verify that the ESRs of Directive 97/23/EC are satisfied, needs to be done.

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 10002-1:2001, *Metallic materials — Tensile testing — Part 1: Method of test at ambient temperature*

EN 10002-5:1991, *Metallic materials — Tensile testing — Part 5: Method of testing at elevated temperature*

EN 10020:2000, *Definition and classification of grades of steel*

EN 10021:2006, *General technical delivery conditions for steel products*

EN 10045-1:1990, *Metallic materials — Charpy impact test — Part 1: Test method*

EN 10052:1993, *Vocabulary of heat treatment terms for ferrous products*

EN 10058, *Hot rolled flat steel bars for general purposes — Dimensions and tolerances on shape and dimensions*

EN 10059, *Hot rolled square steel bars for general purposes — Dimensions and tolerances on shape and dimensions*

EN 10060, *Hot rolled round steel bars for general purposes — Dimensions and tolerances on shape and dimensions*

EN 10061, *Hot rolled hexagon steel bars for general purposes — Dimensions and tolerances on shape and dimensions*

EN 10079:2007, *Definition of steel products*

EN 10088-1:2005, *Stainless steels — Part 1: List of stainless steels*

EN 10168:2004, *Steel products — Inspection documents — List of information and description*

EN 10204:2004, *Metallic products — Types of inspection documents*

EN 10221, *Surface quality classes for hot-rolled bars and rods — Technical delivery conditions*

EN 10278, *Dimensions and tolerances of bright steel products*

EN 10308, *Non-destructive testing — Ultrasonic testing of steel bars*

EN ISO 377, *Steel and steel products — Location and preparation of samples and test pieces for mechanical testing (ISO 377:1997)*

EN ISO 3651-2, *Determination of the resistance to intergranular corrosion of stainless steels — Part 2: Ferritic, austenitic and ferritic-austenitic (duplex) stainless steels — Corrosion test in media containing sulfuric acid (ISO 3651-2:1998)*

EN ISO 6506-1, *Metallic materials — Brinell hardness test — Part 1: Test method (ISO 6506-1:2005)*

EN ISO 14284, *Steel and iron — Sampling and preparation of samples for the determination of chemical composition (ISO 14284:1996)*

ISO 286-1, *ISO system of limits and fits — Part 1: Bases of tolerances, deviations and fits*

3 Terms and definitions

For the purpose of this document the terms and definitions given in EN 10020:2000, EN 10052:1993, EN 10079:2007, EN 10088-1:2005 and the following apply.

3.1

purchaser

person or organization that orders products in accordance with this document. The purchaser is not necessarily, but may be, a manufacturer of pressure equipment in accordance with the EU Directive listed in Annex ZA

NOTE Where a purchaser has responsibilities under this EU Directive, this document will provide a presumption of conformity with the essential requirements of the Directive so identified in Annex ZA.

3.2

cryogenic temperature

temperature lower than $-75\text{ }^{\circ}\text{C}$ used in the liquefaction of gases

4 • Dimensions and tolerances on dimensions

The nominal dimensions and tolerances on dimensions shall be agreed at the time of enquiry and order with reference to the relevant dimensional standard EN 10058, EN 10059, EN 10060, EN 10061, EN 10278 or ISO 286-1. If the relevant standard offers the purchaser certain options, e.g. regarding tolerance classes, specific information on these aspects shall additionally be given.

5 Calculation of mass

When calculating the nominal mass from the nominal dimensions the values given in EN 10088-1 shall be used as a basis for the density of the steel concerned.

6 Classification and designation

6.1 Classification

Steels covered by this document are classified according to their metallographic structure into:

- ferritic steels;
- martensitic steels;