# Terased lihtsate surveanumate valmistamiseks. Plaatide, ribade ja lattide tehnilised tarnenõuded

Steels for simple pressure vessels - Technical delivery requirements for plates, strips and bars



#### **EESTI STANDARDI EESSÕNA**

#### **NATIONAL FOREWORD**

| Käesolev Eesti standard EVS-EN        |
|---------------------------------------|
| 10207:2005 sisaldab Euroopa standardi |
| EN 10207:2005 ingliskeelset teksti.   |

Käesolev dokument on jõustatud 15.07.2005 ja selle kohta on avaldatud teade Eesti standardiorganisatsiooni ametlikus väljaandes.

Standard on kättesaadav Eesti standardiorganisatsioonist.

This Estonian standard EVS-EN 10207:2005 consists of the English text of the European standard EN 10207:2005.

This document is endorsed on 15.07.2005 with the notification being published in the official publication of the Estonian national standardisation organisation.

The standard is available from Estonian standardisation organisation.

#### Käsitlusala:

This document specifies the technical delivery requirements for flat products and bars made of steel in accordance with the specifications for pressurized parts in simple pressure vessels as defined in the Directive 87/404/EEC (see Annex A) and standardized in EN 286-1 to -3.

#### Scope:

This document specifies the technical delivery requirements for flat products and bars made of steel in accordance with the specifications for pressurized parts in simple pressure vessels as defined in the Directive 87/404/EEC (see Annex A) and standardized in EN 286-1 to -3.

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**Võtmesõnad:** metall-latid, metallplaadid, raud- ja terastooted, survemahutid, tarnetingimused, terased, terasribad

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#### English version

## Steels for simple pressure vessels - Technical delivery requirements for plates, strips and bars

Aciers pour appareils à pression simples - Conditions techniques de livraison des tôles, bandes et barres

Stähle für einfache Druckbehälter - Technische Lieferbedingungen für Blech, Band und Stabstahl

This European Standard was approved by CEN on 21 February 2005.

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 Central Secretariat 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 Central Secretariat 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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#### **Foreword**

This document (EN 10207:2005) 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 October 2005, and conflicting national standards shall be withdrawn at the latest by October 2005.

This document supersedes EN 10207:1991.

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 87/404/EEC.

For relationship with EU Directive 87/404/EEC, see informative annex ZA, which is an integral part of this document.

NOTE The clauses marked with two dots  $(\bullet \bullet)$  contain information relating to agreements which 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, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Slovakia, Slovenia, Spain, Sweden, Switzerland and United Kingdom.

#### 1 Scope

This document specifies the technical delivery requirements for flat products and bars made of steel in accordance with the specifications for pressurized parts in simple pressure vessels as defined in the Directive 87/404/EEC (see Annex A) and standardized in EN 286-1 to -3.

#### 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, Metallic materials — Tensile testing — Part 1: Method of testing at ambient temperature.

EN 10002-5, Metallic materials — Tensile testing — Part 5: Method of testing at elevated temperatures.

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

EN 10021:1993, General technical delivery requirements for steel and iron products.

prEN 10027-1, Designation systems for steel — Part 1: Steel names.

EN 10027-2, Designation systems for steels — Part 2: Numerical system.

EN 10029, Hot rolled steel plates 3 mm thick or above — Tolerances on dimensions, shape and mass.

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

EN 10048, Hot rolled narrow steel strip — Tolerances on dimensions and shape.

EN 10051, Continuously hot rolled uncoated plate, sheet and strip of non–alloy and alloy steels — Tolerances on dimensions and shape.

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 10079:1992, Definition of steel products.

EN 10160, Ultrasonic testing of steel flat products of thickness equal or greater than 6 mm (reflection method).

EN 10163-2, Delivery requirements for surface condition of hot rolled steel plates, wide flats and sections – Part 2: Plate and wide flats.

EN 10168, 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 ISO 377, Steel and steel products — Location and preparation of samples and test pieces for mechanical testing (ISO 377:1997).

EN ISO 2566-1, Steel — Conversion of elongation values — Part 1: Carbon and low alloy steels (ISO 2566-1:1994).

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

CR 10261, ECISS Information Circular 11 — Iron and steel — Review of available methods of chemical analysis.

#### 3 Terms and definitions

For the purposes of this document, the following terms and definitions apply in addition to or deviating from the terms and definitions in EN 10020:2000, EN 10021:1993, EN 10052:1993, EN 10079:1992 and EN 10204:2004.

#### 3.1

#### normalizing rolling

rolling process in which final deformation is carried out in a certain temperature range leading to a material condition equivalent to that obtained after normalizing so that the specified values of the mechanical properties are retained even after normalizing

NOTE The symbol for this delivery condition and for the normalized condition is N.

#### 3.2

#### simple pressure vessel

see Annex A

#### 4 Classification and designation

#### 4.1 Classification

In accordance with the classification system in EN 10020, the steel grades P235S and P265S are non-alloy quality steels and the steel grade P275SL is a non-alloy special steel.

#### 4.2 Designation

The steel grades are designated with steel names and steel numbers. The steel names are allocated in accordance with prEN 10027-1. The steel numbers are allocated in accordance with EN 10027-2.

#### 5 Information to be supplied by the purchaser

#### 5.1 Mandatory information

The following information shall be supplied by the purchaser at the time of enquiry and order:

- a) quantity (mass or total length or number);
- b) product form (plate/sheet or strip or bar);
- c) surface class for bars (see 7.4.2);