

**Tasapinnalised terastooted surve all kasutamiseks.
Osa 2: Kindlaksmääratud kõrgtemperatuuriliste
omadustega süsinik- ja sulamterased**

Flat products made of steels for pressure purposes - Part 2:
Non-alloy and alloy steels with specified elevated
temperature properties

EESTI STANDARDI EESSÕNA

NATIONAL FOREWORD

Käesolev Eesti standard EVS-EN 10028-2:2009 sisaldab Euroopa standardi EN 10028-2:2009 ingliskeelset teksti.

Standard on kinnitatud Eesti Standardikeskuse 30.10.2009 käskkirjaga ja jõustub sellekohase teate avaldamisel EVS Teatajas.

Euroopa standardimisorganisatsioonide poolt rahvuslikele liikmetele Euroopa standardi teksti kättesaadavaks tegemise kuupäev on 17.06.2009.

Standard on kättesaadav Eesti standardiorganisatsioonist.

This Estonian standard EVS-EN 10028-2:2009 consists of the English text of the European standard EN 10028-2:2009.

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English Version

**Flat products made of steels for pressure purposes - Part 2:
Non-alloy and alloy steels with specified elevated temperature
properties**

Produits plats en aciers pour appareils à pression - Partie
2: Aciers non alliés et alliés avec caractéristiques
spécifiées à température élevée

Flacherzeugnisse aus Druckbehälterstählen - Teil 2:
Unlegierte und legierte Stähle mit festgelegten
Eigenschaften bei erhöhten Temperaturen

This European Standard was approved by CEN on 14 May 2009.

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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Foreword

This document (EN 10028-2:2009) 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 December 2009, and conflicting national standards shall be withdrawn at the latest by December 2009.

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

This document supersedes EN 10028-2:2003.

This European Standard consists of the following parts, under the general title *Flat products made of steels for pressure purposes*:

- *Part 1: General requirements*
- *Part 2: Non-alloy and alloy steels with specified elevated temperature properties*
- *Part 3: Weldable fine grain steels, normalized*
- *Part 4: Nickel alloy steels with specified low temperature properties*
- *Part 5: Weldable fine grain steels, thermomechanically rolled*
- *Part 6: Weldable fine grain steels, quenched and tempered*
- *Part 7: Stainless steels*

NOTE The clauses marked by two points (••) contain information relating to agreements that may be made at the time of enquiry and order.

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.

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 European Standard specifies requirements for flat products for pressure equipment made of weldable non-alloy and alloy steels with elevated temperature properties as specified in Table 1.

The requirements and definitions of EN 10028-1:2007 + A1:2009 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 (Part 1 and this Part 2 of the series) 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 10028-1:2007 + A1:2009, *Flat products made of steels for pressure purposes – Part 1: General requirements*

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

EN 10229:1998, *Evaluation of resistance of steel products to hydrogen induced cracking (HIC)*

3 Terms and definitions

For the purposes of this document, the terms and definitions given in EN 10028-1:2007 + A1:2009 apply.

4 Dimensions and tolerances on dimensions

See EN 10028-1:2007 + A1:2009.

5 Calculation of mass

See EN 10028-1:2007 + A1:2009.

6 Classification and designation

6.1 Classification

In accordance with EN 10020, the grades P235GH, P265GH, P295GH and P355GH are non-alloy quality steels. All other grades are alloy special steels.

6.2 Designation

See EN 10028-1:2007 + A1:2009.