Boorsilikaatklaasist 3.3 surveseadmed. Üldjuhised konstruktsiooni, tootmise ja katsetamise kohta

Pressure equipment made from borosilicate glass 3.3 - General rules for design, manufacture and testing

EESTI STANDARDI EESSÕNA

NATIONAL FOREWORD

Käesolev Eesti standard EVS-EN 1595:2000 sisaldab Euroopa standardi EN 1595:1997 ingliskeelset teksti. Käesolev dokument on jõustatud 11.01.2000 ja selle kohta on avaldatud teade Eesti standardiorganisatsiooni ametlikus väljaandes. Standard on kättesaadav Eesti standardiorganisatsioonist.	This Estonian standard EVS-EN 1595:2000 consists of the English text of the European standard EN 1595:1997. This document is endorsed on 11.01.2000 with the notification being published in the official publication of the Estonian national standardisation organisation. The standard is available from Estonian standardisation organisation.

Käsitlusala: Käesolev Euroopa standard määrab kindlaks nõuded boorsilikaatklaasist 3.3 tehtud surveseadmestiku (nt mahutid, torud, ventiilid) materjalile, konstruktsioonile, kontrollimisele, testimisele ja märgistusele.	**Scope:**

ICS 71.120.10, 81.040.30

Võtmesõnad: arvutamine, boorsilikaatklaas, karakteristikud, katsetus, keemiline vastupidavus, klaasesemed, klaastorud, konstruktsioon, kvaliteet, märgistus, survemahutid, surveseadmestik, vastuvõetavus

EUROPEAN STANDARD
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EN 1595

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ICS 71.120.10

Descriptors: Pressure equipment, glass, manufacture, testing.

English version

Pressure equipment made from borosilicate glass 3.3

General rules for design, manufacture and testing

Equipement sous pression réalisés en verre borosilicate 3.3 – Règles générales pour calculs, fabrication et essais

Druckgeräte aus Borosilicatglas 3.3 – Allgemeine Grundsätze für Berechnung, Herstellung und Prüfung

This European Standard was approved by CEN on 1996-12-12.

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.

The European Standards exist 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.

CEN members are the national standards bodies of Austria, Belgium, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Luxembourg, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland, and the United Kingdom.

CEN

European Committee for Standardization
Comité Européen de Normalisation
Europäisches Komitee für Normung

Central Secretariat: rue de Stassart 36, B-1050 Brussels

Ref. No. EN 1595:1997 E

Foreword

This European Standard has been prepared by CEN/CS.

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 July 1997, and conflicting national standards shall be withdrawn at the latest by July 1997.

According to the CEN/CENELEC Internal Regulations, the national standards organizations of the following countries are bound to implement this European Standard: Austria, Belgium, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Luxembourg, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland and the United Kingdom.

Introduction

It has been assumed in the drafting of this European Standard that the execution of its provisions is entrusted to appropriately qualified and experienced people.

1 Scope

This European Standard specifies material, design, inspection, testing and marking requirements of pressure equipment (e. g. vessels, pipes, valves) made from borosilicate glass 3.3 with a coefficient of mean linear thermal expansion of $(3{,}3 \pm 0{,}1) \times 10^{-6}\ K^{-1}$.

It is not applicable to:

- circular, flat and tubular sight glasses;
- equipment made from borosilicate glass with another coefficient of thermal expansion.

2 Normative references

This European Standard incorporates, by dated or undated reference, provisions from other publications. These normative references are cited at the appropriate places in the text and the publications are listed hereafter. For dated references, subsequent amendments to or revisions of any of these publications apply to this European Standard only when incorporated in it by amendment or revision. For undated references, the latest edition of the publication referred to applies.

ISO 695
Glass – Resistance to attack by a boiling aqueous solution of mixed alkali – Method of test and classification

ISO 719
Glass – Hydrolytic resistance of glass grains at 98 degrees C – Method of test and classification

ISO 720
Glass – Hydrolytic resistance of glass grains at 121 degrees C – Method of test and classification

ISO 1776
Glass – Resistance to attack by hydrochloric acid at 100 degrees C – Flame emission or flame atomic absorption spectrometric method

ISO 7884-8
Glass – Viscosity and viscometric fixed points – Part 8: Determination of (dilatometric) transformation temperature

ISO 7991
Glass – Determination of coefficient of mean linear thermal expansion

3 Symbols and units

For the purposes of this European Standard the following symbols and their definitions apply:

c_p	specific heat capacity	$kJ \cdot kg^{-1} \cdot K^{-1}$
$c_{p20/100}$	mean specific heat capacity between 20 °C and 100 °C	$kJ \cdot kg^{-1} \cdot K^{-1}$
$c_{p20/200}$	mean specific heat capacity between 20 °C and 200 °C	$kJ \cdot kg^{-1} \cdot K^{-1}$
E	modulus of elasticity	$kN \cdot mm^{-2}$
K	strength characteristic	$N \cdot mm^{-2}$
S	safety factor	–