Keraamiliste torude süsteemid drenaažile ja kanalisatsioonile. Osa 6: Nõuded hoolde- ja kontrollkaevudele

Vitrified clay pipes systems for drain and sewers - Part 6: Requirements for components of manholes and Tolich Ochologia of the inspection chambers



EESTI STANDARDI EESSÕNA

NATIONAL FOREWORD

| | This Estonian standard EVS-EN 295-6:2013 consists of the English text of the European standard EN 295- |
|--|--|
| teksti. | 6:2013. |
| 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 the second | Date of Availability of the European standard is 06.02.2013. |
| Standard on kättesaadav Eesti Standardikeskusest. | The standard is available from the Estonian Centre for Standardisation. |

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

ICS 93.030

Standardite reprodutseerimise ja levitamise õigus kuulub Eesti Standardikeskusele

Andmete paljundamine, taastekitamine, kopeerimine, salvestamine elektroonsesse süsteemi või edastamine ükskõik millises vormis või millisel teel ilma Eesti Standardikeskuse kirjaliku loata on keelatud.

Kui Teil on küsimusi standardite autorikaitse kohta, võtke palun ühendust Eesti Standardikeskusega: Aru 10, 10317 Tallinn, Eesti; 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

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.

If you have any questions about copyright, please contact Estonian Centre for Standardisation: Aru 10, 10317 Tallinn, Estonia; www.evs.ee; phone 605 5050; e-mail info@evs.ee

EUROPEAN STANDARD NORME EUROPÉENNE EUROPÄISCHE NORM

EN 295-6

February 2013

ICS 93.030

Supersedes EN 295-10:2005, EN 295-6:1995

English Version

Vitrified clay pipes systems for drain and sewers - Part 6: Requirements for components of manholes and inspection chambers

Systèmes de tuyaux en grès vitrifié pour les collecteurs d'assainissement et les branchements - Partie 6: Exigences applicables aux composants de regards et de boîtes d'inspection ou de branchement

Steinzeugrohrsysteme für Abwasserleitungen und -kanäle -Teil 6: Anforderungen an Bauteile für Einsteig- und Inspektionsschächte

This European Standard was approved by CEN on 1 December 2012.

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, Former Yugoslav Republic of Macedonia, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and United Kingdom.



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

Management Centre: Avenue Marnix 17, B-1000 Brussels

| Cont | ents | age |
|----------------|--|-----|
| | ord | |
| Forewo | ord | 4 |
| 1 | Scope | 5 |
| 2 | Normative references | 5 |
| 3 | Terms and definitions | 5 |
| 4 | Requirements for components for manholes and inspection chambers | 6 |
| 4.1 | Materials, manufacture, water absorption and appearance | 6 |
| 4.1.1 | Vitrified clay | |
| 4.1.2 | Rubber sealing material | |
| 4.1.3 | Polyurethane sealing materials | |
| 4.1.4 | Polypropylene couplings | |
| 4.1.5 4.2 | Materials of other components | |
| 4.2 4.2.1 | Internal diameter | |
| 4.2.1 4.2.2 | Pipeline connections | |
| 4.3 | Height | |
| 4.4 | Angle of curvature and radius of channel bends | |
| 4.5 | Branch angles of channel junctions | |
| 4.6 | Crushing strength (F_N) | |
| 4.7 | Bending tensile strength | |
| 4.8 | Bond strength of adhesive used for fixing fired clay parts together | |
| 4.9 | Fatigue strength under cyclic load | |
| 4.10 | Chemical resistance | 7 |
| 4.11 | Water tightness of assembled components | 7 |
| 4.12 | Joint systems | 8 |
| 5 | Common requirements for manholes and inspection chambers | 8 |
| 5.1 | Reaction to fire | 3 |
| 5.2 | Durability | |
| 5.3 | Dangerous substances | 8 |
| 6 | Designation | c |
| | • | |
| 7 | Marking | 9 |
| 7.1 | Manhole and inspection chamber components | 9 |
| 7.2 | Joints | |
| 8 | Evaluation of conformity | 10 |
| 8.1 | General | |
| 8.2 | Initial type testing | |
| 8.3 | Factory production control (FPC) | |
| Annex | A (informative) Examples of manholes and inspection chambers | 11 |
| A .1 | Manhole | 11 |
| A.2 | Inspection chamber | |
| Annex | B (informative) Manhole stability | 13 |
| | ZA (informative) Clauses of this European Standard addressing the provisions of the EU | |
| 7 A 4 | Construction Products Directive | |
| ZA.1 | Scope and relevant characteristics | |
| | Systems of attestation of conformity EC declaration of conformity | |
| ZA.Z.Z | | 1/ |

| 3.1 General 3.2 CE marking on 3.3 CE marking in t | the producthe accompanying documents | | |
|---|--------------------------------------|---------|----|
| | | | |
| 3. | | | |
| 70 | | | |
| 0. | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| 4 | O. | | |
| | $\mathcal{O}_{\mathcal{X}}$ | | |
| | | | |
| | S. | | |
| | 0) | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | 0 | |
| | | 0 | |
| | | | |
| | | | |
| | | Q_{x} | |
| | | (0) | |
| | | Q, | |
| | | Ó, | |
| | | | |
| | | | |
| | | | 4 |
| | | | () |
| | | | |

Foreword

This document (EN 295-6:2013) has been prepared by Technical Committee CEN/TC 165 "Wastewater engineering", 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 August 2013, and conflicting national standards shall be withdrawn at the latest by August 2013.

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 295-6:1995 and together with EN 295-1:2013, EN 295-2:2013, EN 295-4:2013. EN 295-5:2013 and EN 295-7:2013 it supersedes EN 295-10:2005.

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(s).

For relationship with EU Directive(s), see informative Annex ZA, which is an integral part of this document.

The main changes with respect to the previous edition are listed below:

- reaction to fire added:
- Annex ZA added;
- editorially revised.

The standard series EN 295 "Vitrified clay pipe systems for drains and sewers" consists of the following parts:

- Part 1: Requirements for pipes, fittings and joints
- Part 2: Evaluation of conformity and sampling
- Part 3: Test methods
- Part 4: Requirements for adaptors, connectors and flexible couplings
- Part 5: Requirements for perforated pipes and fittings
- Part 6: Requirements for components of manholes and inspection chambers (the present document)
- Part 7: Requirements for pipes and joints for pipe jacking

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, Former Yugoslav Republic of Macedonia, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and the United Kingdom.

1 Scope

This European Standard applies for components for vitrified clay manholes and inspection chambers for buried drain and sewer systems for the conveyance of wastewater (including domestic wastewater, surface water and rainwater) under gravity and periodic hydraulic surcharge or under continuous low head of pressure.

It specifies different strength classes and heights of sections. It also specifies the requirements for components used for joints, systems of joint dimensions and the materials rubber, polyurethane and polypropylene used for joints.

NOTE 1 The specifiers/purchasers can select the components for vitrified clay manholes and inspection chambers according to their requirements.

This standard does not apply to manhole tops and cover slabs.

NOTE 2 Corresponding provisions for the evaluation of conformity (ITT and FPC) and sampling and those for the test methods are further specified in EN 295-2 and EN 295-3, respectively.

2 Normative references

The following documents, in whole or in part, are normatively referenced in this document and are indispensable for its application. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

EN 295-1:2013, Vitrified clay pipe systems for drains and sewers — Part 1: Requirements for pipes, fittings and joints

EN 295-2:2013, Vitrified clay pipes systems for drain and sewers — Part 6: Requirements for components of manholes and inspection chambers

EN 295-3:2012, Vitrified clay pipe systems for drains and sewers — Part 3: Test methods

EN 681-1, Elastomeric seals — Materials requirements for pipe joint seals used in water and drainage applications — Part 1: Vulcanized rubber

EN 681-4, Elastomeric seals — Materials requirements for pipe joint seals used in water and drainage applications — Part 4: Cast polyurethane sealing elements

3 Terms and definitions

For the purposes of this document, the terms and definitions given in EN 295-1, 2013, and the following apply.

3.1

manhole

chamber with a removable cover constructed on a drain or sewer to permit entry by personnel

[SOURCE: EN 752:2008, 3.41]

Note 1 to entry: An example of a vitrified clay manhole is given in Figure A.1.