Klaasja kihiga kaetud keraamilised torud ja liitmikud ning toruühendused dreenide ja kanalisatsioonitorustike jaoks. Osa 4: Nõuded spetsiaalsetele liitmikele, adapteritele ja nendega ühilduvale lisavarustusele

Vitrified clay pipes and fittings and pipe joints for drains and sewers - Part 4: Requirements for special fittings, adaptors and compatible accessories



#### **EESTI STANDARDI EESSÕNA**

#### **NATIONAL FOREWORD**

Käesolev Eesti standard EVS-EN 295-
4:1999 sisaldab Euroopa standardi EN
295-4:1995+AC:1998 ingliskeelset teksti.

This Estonian standard EVS-EN 295-4:1999 consists of the English text of the European standard EN 295-4:1995+AC:1998.

Käesolev dokument on jõustatud 23.11.1999 ja selle kohta on avaldatud teade Eesti standardiorganisatsiooni ametlikus väljaandes.

This document is endorsed on 23.11.1999 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:

Käesolev standard määrab kindlaks nõuded sellistele spetsiaalsetele liitmikele, adapteritele ja nendega ühilduvale lisavarustusele, mis on tehtud klaasja kihiga kaetud keraamilistest materjalidest ja/või teistest sobivatest materjalidest, kasutamiseks koos klaasja kihiga kaetud keraamiliste torude ja liitmikega drenaazija kanalisatsioonisüsteemides. Standard ei kehti objektide kohta, mis on kindlaks määratud standardi EN 295 teistes osades. Lisanõuded konkreetsetele objektidele on esitatud standardi käesoleva osa lisades.

#### Scope:

ICS 93.030

**Võtmesõnad:** kanalisatsioon, kvaliteedikontroll, liivakivitooted, lisavarustus, proovivõtt, testimine, torud, toruvarustus, veetorustikud

### EUROPEAN STANDARD NORME EUROPÉENNE EUROPÄISCHE NORM

March 1995

ICS 23.040.30; 23.040.50

Descriptors: Vitrified clay pipes, pipes, fittings.

#### **English version**

# Vitrified clay pipes and fittings and pipe joints for drains and sewers

Part 4: Requirements for special fittings, adaptors and compatible accessories

Tuyaux et accessoires en grès et assemblages de tuyaux pour les réseaux de branchement et d'assainissement.
Partie 4: Prescriptions pour accessoires spéciaux, pièces d'adaptation et accessoires compatibles

Steinzeugrohre und Formstücke sowie Rohrverbindungen für Abwasserleitungen und -kanäle. Teil 4: Anforderungen an Sonderformstücke, Übergangsbauteile und Zubehörteile

This European Standard was approved by CEN on 1995-03-13.

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.

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 United Kingdom.

## CEN

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

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

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#### **Foreword**

This European Standard has been prepared by Technical Committee CEN/TC 165 'Waste water engineering', the Secretariat of which is held by DIN.

The EN 295 standards series consists of the the following Parts:

- EN 295-1 Vitrified clay pipes and fittings for drains and sewers. Part 1: Requirements
- EN 295-2 Vitrified clay pipes and fittings for drains and sewers. Part 2: Quality control
- EN 295-3 Vitrified clay pipes and fittings for drains and sewers. Part 3: Test methods
- EN 295-4 Vitrified clay pipes and fittings for drains and sewers. Part 4: Requirements for special fittings, adaptors and compatible accessories
- EN 295-5 Vitrified clay pipes and fittings for drains and sewers. Part 5: Requirements for perforated vitrified clay pipes and fittings
- EN 295-6 Vitrified clay pipes and fittings for drains and sewers. Part 6: Requirements for vitrified clay manholes\*)
- EN 295-7 Vitrified clay pipes and fittings for drains and sewers. Part 7: Requirements for vitrified clay pipes and joints for pipe jacking\*)

On drafting this standard, the provisional results of the work of CEN/TC 165/WG 1 'General requirements on pipes, fittings, pipe joints including sealings and manholes' or other relevant Working Groups of TC 165 were taken into account. Once further results are available, any necessary amendments will be made.

This European Standard shall be given the status of a national standard, either by publication of an identical text or by endorsement, by September 1995 at the latest, and conflicting national standards withdrawn, by March 1996 at the latest. In accordance with the CEN/CENELEC Internal Regulations, 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 United Kingdom.

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For \*), see page 1.

#### 1 Scope

This Standard specifies the requirements for special fittings, adaptors and compatible accessories made from vitrified clay and/or other suitable materials for use with vitrified clay pipes and fittings in drainage and sewerage systems. It does not apply to items which are specified in other parts of EN 295. Any additional requirements for particular items are given in the annexes to this part of the standard.

Where this Standard provides for different systems of jointing dimensions, different lengths and different types of fittings, the specifiers/purchasers may select according to their requirements.

NOTE 1: The wide diversity of ranges and numbers of special fittings, adaptors and compatible accessories offered by manufacturers and required by specifiers and purchasers throughout Europe cannot be fully listed within this standard. Manufacturers' product range lists and specifications provide the necessary information.

NOTE 2: Where reference is made to clauses in EN 295-1: 1991, EN 295-2: 1991 or EN 295-3: 1991 this is clearly stated.

#### 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. Further details are given in normative annexes A, B and C.

EN 295-1 : 1991	Vitrified clay pipes and fittings and pipe joints for drains and sewers: Part 1: Requirements.
EN 295-2 : 1991	Vitrified clay pipes and fittings and pipe joints for drains and sewers: Part 2: Quality control and sampling.
EN 295-3 : 1991	Vitrified clay pipes and fittings and pipe joints for drains and

sewers: Part 3: Test methods.

ISO/DIS 4633: 1986 Rubber seals - Joint rings for water supply, drainage and sewerage pipelines - Specification for materials.

EN 10002 - 2:1992 Tensile testing of metallic materials - Part 2: verification of the force measuring system of the tensile testing machine.

#### 3 Definitions

#### 3.1 Special fittings

Any fittings made from vitrified clay and/or other suitable materials which are not covered by the fitting groups used in table 2 of EN 295-2: 1991.

#### 3.2 Adaptors

Special items, made from vitrified clay and/or other suitable materials, to join together vitrified clay pipes and fittings of different jointing systems permitted in EN 295-1 or to join them to items of other pipeline materials.

#### 3.3 Compatible accessories

Accessories made from vitrified clay and/or other suitable materials designed to be incorporated into a system which includes pipes and/or fittings specified to any part of EN 295.

#### 4 Requirements

#### 4.1 Materials and manufacture

#### 4.1.1 Vitrified clay

All vitrified clay elements of special fittings, adaptors and compatible accessories shall comply with 2.1 of EN 295-1:1991.

#### 4.1.2 Vulcanised rubber sealing materials

Vulcanised rubber sealing materials shall comply with ISO/DIS 4633: 1986. Where vulcanised rubber sealing elements are permanently attached to vitrified clay components of adaptors, special fittings or compatible accessories they shall fulfill the additional requirement of 3.1.1 of EN 295-1: 1991 when tested in accordance with clause 14 of EN 295-3: 1991.