Irish Standard
I.S. EN 295-1:2013

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

I.S. EN 295-1:2013

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Steinzeugrohrsysteme für Abwasserleitungen und -känale - Teil 1: Anforderungen an Rohre, Formstücke und Verbindungen

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Foreword

This document (EN 295-1:2013) 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of an identical text or by endorsement, at the latest by August 2013, and conflicting national standards shall be withdrawn at the latest by August 2013.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 295-1:1991 and together with EN 295-2:2013, EN 295-4:2013, EN 295-5:2013, EN 295-6:2013 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:

a) new dimensions included in Table 13 and Table 14 and dimensions for products no longer manufactured deleted;

b) requirements for the resistance to high pressure water jetting added;

c) requirements for water absorption added;

d) reaction to fire added;

e) Annex ZA added;

f) 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* (the present document)

— *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*

— *Part 7: Requirements for pipes and joints for pipe jacking*

Guidance on design, installation and operation of sewers and drains constructed from vitrified clay pipes is given in EN 295-1:2013, Annex B.

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 specifies requirements for vitrified clay pipes, fittings and flexible joints 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.

This standard also specifies requirements for rubber, polyurethane and polypropylene materials and other components used for jointing clay pipes and fittings.

This standard specifies different strength classes, systems of joint dimensions, lengths and fittings.

NOTE 1 The specifiers/purchasers can select them according to their requirements.

This standard does not apply to special fittings, adaptors and compatible accessories, perforated pipes and fittings, manholes and inspection chambers and pipes and joints for pipe jacking, which are specified in other parts of the standard series EN 295.

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 295-2:2013, *Vitrified clay pipe systems for drains and sewers — Part 2: Evaluation of conformity and sampling*

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

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

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

EN 1610:1997, *Construction and testing of drains and sewers*

3 Terms and definitions

For the purposes of this document, the following terms and definitions apply.

3.1
nominal size
DN
numerical designation of size which is a convenient round number equal to or approximately equal to the internal diameter in millimetres

3.2
curvature
angle subtended by the length of a curved fitting at the centre of a circle of nominal radius through the centreline of the fitting