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**BS EN 295-4:2013**



BSI Standards Publication

# **Vitrified clay pipe systems for drains and sewers**

Part 4: Requirements for adaptors,  
connectors and flexible couplings

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This British Standard is the UK implementation of EN 295-4:2013. It supersedes BS EN 295-4:1995 and, together with BS EN 295-1:2013, BS EN 295-2:2013, BS EN 295-5:2013, BS EN 295-6:2013, and BS EN 295-7:2013, it supersedes BS EN 295-10:2005, which is withdrawn.

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A list of organizations represented on this committee can be obtained on request to its secretary.

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English Version

## Vitrified clay pipe systems for drains and sewers - Part 4: Requirements for adaptors, connectors and flexible couplings

Systèmes de tuyaux en grès vitrifié pour les collecteurs  
d'assainissement et les branchements - Partie 4:  
Exigences applicables aux adaptateurs, raccords et  
assemblages souples

Steinzeugrohrsysteme für Abwasserleitungen und -känäle -  
Teil 4: Anforderungen an Übergangs- und  
Anschlussbauteile und flexible Kupplungen

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.

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Foreword	4
	Page
1 Scope	5
2 Normative references	5
3 Terms and definitions	6
4 Symbols and abbreviations	6
5 Requirements for adaptors, connectors and flexible couplings	6
5.1 Materials, manufacture, water absorption and appearance	6
5.1.1 Vitrified clay	6
5.1.2 Rubber sealing materials	6
5.1.3 Polyurethane sealing materials	7
5.1.4 Other materials	7
5.1.5 Manufacture	7
5.2 Internal diameter	7
5.3 Length	7
5.4 Angles	7
5.5 Squareness of ends and joint interchangeability	7
5.6 Bond strength of adhesive for fixing fired vitrified clay parts together	7
5.7 Tightness	7
5.8 Chemical resistance	7
5.8.1 Vitrified clay	8
5.8.2 Other materials	8
5.9 Requirements for joint assemblies	8
5.9.1 Vitrified clay pipeline systems	8
5.9.2 Vitrified clay pipelines to other materials	8
5.9.3 Metal banded flexible couplings and adaptors	8
5.9.4 Connectors, insertable fittings and sealing rings	8
5.9.5 Heatshrinkable sleeves	8
6 Common requirements for adaptors, connectors and flexible couplings	8
6.1 Reaction to fire	9
6.2 Durability	9
6.3 Dangerous substances	9
7 Designation	9
8 Marking	10
9 Evaluation of conformity	10
9.1 General	10
9.2 Initial type testing	10
9.3 Factory production control (FPC)	10
Annex A (normative) Metal banded flexible couplings and adaptors	11
A.1 General	11
A.2 Types of metal banded flexible couplings and adaptors	11
A.2.1 Type 1 couplings (without shear bands)	11
A.2.2 Type 2 couplings (with shear bands)	11
A.2.3 Metal banded adaptors	12
A.2.4 Bushes	12
A.3 Requirements	12
A.3.1 Materials	12
A.3.2 Dimensions and tolerances	13
A.3.3 Performance requirements	14

This is a preview of "BS EN 295-4:2013". [Click here to purchase the full version from the ANSI store.](#)

<b>A.3.4</b>	<b>Testing</b> .....	<b>14</b>
<b>Annex B</b>	<b>(normative) Connectors, insertable fittings and sealing rings</b> .....	<b>16</b>
<b>B.1</b>	<b>General</b> .....	<b>16</b>
<b>B.2</b>	<b>Connectors</b> .....	<b>16</b>
<b>B.3</b>	<b>Insertable fittings</b> .....	<b>16</b>
<b>B.4</b>	<b>Sealing rings for cut pipes</b> .....	<b>17</b>
<b>B.5</b>	<b>Performance requirements</b> .....	<b>17</b>
<b>Annex C</b>	<b>(normative) Heatshrinkable sleeves</b> .....	<b>18</b>
<b>C.1</b>	<b>General</b> .....	<b>18</b>
<b>C.2</b>	<b>Materials and manufacture</b> .....	<b>18</b>
<b>C.3</b>	<b>Dimensions</b> .....	<b>19</b>
<b>C.4</b>	<b>Performance requirements</b> .....	<b>19</b>
<b>Annex ZA</b>	<b>(informative) Clauses of this European Standard addressing the provisions of the EU Construction Products Directive</b> .....	<b>20</b>
<b>ZA.1</b>	<b>Scope and relevant characteristics</b> .....	<b>20</b>
<b>ZA.2</b>	<b>Procedures for the attestation of conformity of adaptors, connectors and flexible couplings</b> .....	<b>24</b>
<b>ZA.2.1</b>	<b>System of attestation of conformity</b> .....	<b>24</b>
<b>ZA.2.2</b>	<b>EC declaration of conformity</b> .....	<b>25</b>
<b>ZA.3</b>	<b>CE marking and labelling</b> .....	<b>26</b>
<b>ZA.3.1</b>	<b>General</b> .....	<b>26</b>
<b>ZA.3.2</b>	<b>CE marking on the product</b> .....	<b>26</b>
<b>ZA.3.3</b>	<b>CE marking on the accompanying documents</b> .....	<b>27</b>
	<b>Bibliography</b> .....	<b>29</b>

This is a preview of "BS EN 295-4:2013". [Click here to purchase the full version from the ANSI store.](#)

## Foreword

This document (EN 295-4:2013) 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 295-4:1995 and together with EN 295-1:2013, EN 295-2:2013, 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 version are listed below:

- reaction to fire added;
- Annex ZA added.

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 (the present document)*
- *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*

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.

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## 1 Scope

This European Standard specifies requirements for adaptors and connectors made from vitrified clay and/or other suitable materials for use with vitrified clay pipes and fittings 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.

Adaptors and connectors include insertable fittings, sealing rings for cut pipes and heat-shrinkable sleeves.

This standard also applies for metal banded flexible couplings and adaptors and specifies requirements for rubber, polyurethane, stainless steel and other components used for them.

NOTE 1 The specifiers/purchasers can select adaptors, connectors and flexible couplings according to their requirements.

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 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 295-5:2013, *Vitrified clay pipe systems for drains and sewers — Part 5: Requirements for perforated pipes and fittings*

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

EN 295-7:2013, *Vitrified clay pipe systems for drains and sewers — Part 7: Requirements for pipes and joints for pipe jacking*

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*

EN 1427, *Bitumen and bituminous binders — Determination of the softening point — Ring and Ball method*

EN 10088-2:2005, *Stainless steels — Technical delivery conditions for sheet/plate and strip of corrosion resisting steels for general purposes*

EN ISO 527-1, *Plastics — Determination of tensile properties — Part 1: General principles (ISO 527-1)*

EN ISO 527-2, *Plastics — Determination of tensile properties — Part 2: Test conditions for moulding and extrusion plastics (ISO 527-2)*