

**SLOVENSKI STANDARD**  
**SIST EN 295-3:1996/A1:2000**  
**01-november-2000**

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**Keramične cevi, fazonski kosi in spoji za odvod odpadne vode in kanalizacijo - 3.  
del: Preskusne metode**

Vitrified clay pipes and fittings and pipe joints for drains and sewers - Part 3: Test methods

Steinzeugrohre und Formstücke sowie Rohrverbindungen für Abwasserleitungen und -kanäle - Teil 3: Prüfverfahren

Tuyaux et accessoires en gres et assemblages de tuyaux pour les réseaux de branchement et d'assainissement - Partie 3: Méthode d'essai

<https://standards.iteh.ai/catalog/standards/sist/aaa3290d-94df-4b74-a41a-9d7f8e2225af/sist-en-295-3-1996-a1-2000>

**Ta slovenski standard je istoveten z: EN 295-3:1991/A1:1998**

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**ICS:**

|           |                                      |                                       |
|-----------|--------------------------------------|---------------------------------------|
| 23.040.50 | Cevi in fitingi iz drugih materialov | Pipes and fittings of other materials |
| 91.140.80 | Drenažni sistemi                     | Drainage systems                      |
| 93.030    | Zunanji sistemi za odpadno vodo      | External sewage systems               |

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EUROPEAN STANDARD  
NORME EUROPÉENNE  
EUROPÄISCHE NORM

EN 295-3:1991/A1

August 1998

ICS 23.040.50

Descriptors: water pipelines, sewage, pipes: tubes, accessories, vitrified clay, tests

English version

## Vitrified clay pipes and fittings and pipe joints for drains and sewers - Part 3: Test methods

Tuyaux et accessoires en grès et assemblages de tuyaux  
pour les réseaux de branchement et d'assainissement -  
Partie 3: Méthode d'essai

Steinzeugrohre und Formstücke sowie Rohrverbindungen  
für Abwasserleitungen und Kanäle - Teil 3: Prüfverfahren

This amendment A1 modifies the European Standard EN 295-3:1991; it was approved by CEN on 17 May 1998.

CEN members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for inclusion of this amendment into the relevant 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 amendment 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, Czech Republic, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Luxembourg, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland and United Kingdom.

[SIST EN 295-3:1996/A1:2000](https://standards.iteh.ai/catalog/standards/sist/aaa3290d-94df-4b74-a41a-9d7f8e2225af/sist-en-295-3-1996-a1-2000)

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

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

## Foreword

This Amendment EN 295-3:1991/A1:1998 to EN 295-3:1991 has been prepared by Technical Committee CEN/TC 165 "Waste water engineering", the secretariat of which is held by DIN.

This Amendment to the European Standard EN 295-3:1991 shall be given the status of a national standard, either by publication of an identical text or by endorsement, at the latest by February 1999, and conflicting national standards shall be withdrawn at the latest by February 1999.

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

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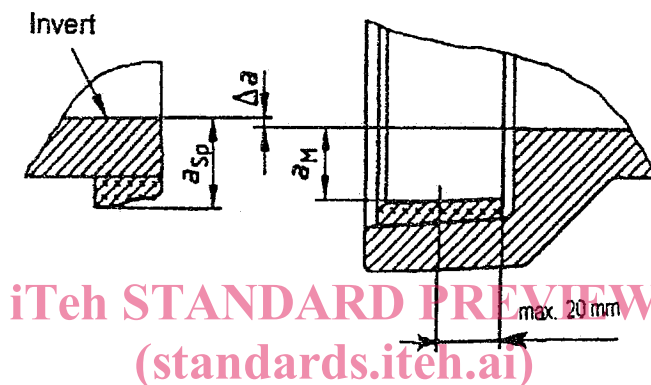
<https://standards.iteh.ai/catalog/standards/sist/aaa3290d-94df-4b74-a41a-9d7f8e2225af/sist-en-295-3-1996-a1-2000>



## Amendments to EN 295-3

1. 1.2 Delete "ISO/R 527 : 1966 - Plastics - Determination of tensile properties".  
  
Insert "ISO 527-2 : 1995 - Plastics - Determination of tensile properties - Part 2: Test conditions for moulding and extrusion plastics"
2. Clause 2 1st paragraph. Insert to end of sentence " for up to and including DN 500 and 100 mm for pipes greater than DN 500" .
3. Clause 3 At end of clause delete " $L_T = L_N - 150 \text{ mm}$ "  
  
Insert " $L_T = L_N - 150 \text{ mm} \leq \text{DN } 500$   
 $L_T = L_N - 200 \text{ mm} > \text{DN } 500$ "
4. 4.2.1 Insert to end of 2nd paragraph "Bearers shall be located such that they are aligned both longitudinally and transversely."
5. Clause 9 Insert in 2nd line after "pipes" ", bends, junctions".  
  
Delete 1st sentence of 2nd paragraph. Insert as first sentence "The specimen(s) shall be clamped into a suitable apparatus to test the watertightness (of the specimens)."  
  
Delete in 3rd paragraph 4th line "pipe".  
<https://standards.iteh.ai/catalog/standards/sist/aaa3290d-94df-4b74-a41a-9d78-a226/sist-en-295-3-1996-a1-2000>
6. Clause 13 Delete title "Impermeability test for fittings"  
Insert "13 Airtightness test"  
  
13.1 Delete 13.1.  
  
13.2 Delete title "13.2 Air pressure test"  
  
Delete in 1st paragraph 1st line "fitting". Insert "pipe, bend, junction"  
  
Delete in 1st paragraph 8th line "100 mm water gauge". Insert "the required initial pressure".  
  
Delete in 1st paragraph 10th line "100 mm water gauge". Insert "the required initial pressure".
7. Clause 14 Delete the whole text  
  
Insert "Vulcanized rubber shall be tested in accordance with ISO 1431-1"
8. 15.7 Delete in second line " $(10 \pm 1) \text{ }^\circ\text{C}$ "  
Insert " $(-10 \pm 1) \text{ }^\circ\text{C}$ "

9. 16.2 First paragraph line 5 delete "Type 2 in ISO/R527" and insert " Type 5A in ISO 527-2"
- First paragraph last line delete "figure 2 of ISO/R527:1966" and insert "figure A.2 of ISO 527-2:1995"
- Last paragraph 2nd line delete "ISO/R 527". Insert "ISO 527-2"
- Last paragraph 3rd line delete "Speed D (100 mm/min + 10%)". Insert "50mm/min ± 10%"
10. Figure 16 Delete figure 16, insert figure given below.



11. 19.3.2 Delete 3rd paragraph  
<https://standards.iteh.ai/catalog/standards/sist/aaa3290d-94df-4b74-a41a-181e7295-3:1996/A1:2000>  
 Insert as 3rd paragraph "The combined ( $B_t$  and  $C_t$ ) is calculated by taking the sum of  $B_t$  values and the sum of  $C_t$  values and dividing by 40. The corresponding mean ( $E_t$  and  $F_t$ ) and standard deviations are similarly calculated."
12. 21.1 Insert in last line of indent after "ambient temperature" "for 2 h".  
 Delete in 2nd paragraph 2nd line "Finally, tightness". Insert "Tightness". Move 1st sentence of 2nd paragraph to be 2nd sentence.
13. New Clause 23 **23 Creep resistance of rigid fairing materials**

### 23.1 Deformation

#### 23.1.1 Test samples

The test samples shall have the following dimensions in mm:

- cylinder (diameter x height),  $(13 \pm 0,5) \times (6,3 \pm 0,3)$
- or
- cuboid  $(11,5 \pm 0,5) \times (11,5 \pm 0,5) \times (6,3 \pm 0,3)$ .

The end faces of the cylinder shall be parallel.

### 23.1.2 Test apparatus

The test apparatus shall be capable of applying a force of  $1,25 \text{ N/mm}^2$  to a plate of 20 mm diameter. The deformation shall be measured to the nearest 0,01 mm.

### 23.1.3 Procedure

Apply a force of  $1,25 \text{ N/mm}^2$  to the plate. Measure the deformation ( $\epsilon$ ) at the following times (t) from applying the force :  $(1 \pm 0,1) \text{ min}$ ,  $(10 \pm 1) \text{ min}$ ,  $(100 \pm 10) \text{ min}$ ,  $(22 \pm 2) \text{ h}$ , and  $(7 \pm 0,7) \text{ days}$ .

The measured values of time and deformation shall be plotted on a graph. The ordinates are plotted as  $\log \epsilon$  and the abscissa as  $\log t$ . The best fit curve shall then be plotted. The values for  $t = 10^0$  and  $t = 10^4$  shall be read from the graph.

## 23.2 Indentation

### 23.2.1 Test samples

The test samples shall be cast a minimum of 48 h prior to testing and have the following dimensions in millimetres:

cuboid  $(50 \pm 2) \times (50 \pm 2) \times (10 \pm 1)$

### 23.2.2 Test apparatus

The test apparatus shall be capable of applying a force of  $0,7 \text{ N/mm}^2$  to an indentation rod of 6 mm diameter. The indentation shall be measured to the nearest 0,01 mm. The sample shall be held at a temperature of  $(50 \pm 5) \text{ }^\circ\text{C}$  throughout the test period.

### 23.2.3 Procedure

Place the sample centrally under the indentation rod and lower the rod onto the sample. Apply a force of  $0,7 \text{ N/mm}^2$  to the indentation rod and measure the indentation after a period of  $(24 + 0,5) \text{ h}$ .