

## SLOVENSKI STANDARD **SIST EN 12095:1999**

01-julij-1999

Cevni sistemi iz polimernih materialov - Nosilci za cevne sisteme za deževnico -Metoda za preskus trdnosti nosilcev

Plastics piping systems - Brackets for rainwater piping systems - Test method for bracket strength

Kunststoff-Rohrleitungssysteme - Schellen für Regenwasser-Rohrleitungssysteme -Prüfverfahren der SchellenFestigkeit NDARD PREVIEW

Systemes de canalisation en plastique - Colliers pour systemes de descente pluviale -Méthode d'essai pour la résistance du collier 12095:1999

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Ta slovenski standard je istoveten z: EN 12095-1999

ICS:

23.040.01 Deli cevovodov in cevovodi Pipeline components and

> pipelines in general na splošno

Drenažni sistemi 91.140.80 Drainage systems

SIST EN 12095:1999 en **SIST EN 12095:1999** 

# iTeh STANDARD PREVIEW (standards.iteh.ai)

SIST EN 12095:1999

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**EUROPEAN STANDARD** 

EN 12095

NORME EUROPÉENNE

EUROPÄISCHE NORM

February 1997

ICS 21.060.70; 23.040.90; 91.140.80

Descriptors:

plastic tubes, rainwater pipes, fastenings, pipe clips, metals, plastics, tests, mechanical strength, measurements,

English version

Plastics piping systems - Brackets for rainwater piping systems - Test method for bracket strength

STANDARD PRE

Systèmes de canalisation Colliers pour systèmes de descente pluviale dards.ite Kunststoff-Rohrleitungssysteme - Schellen für Regenwasser-Rohrleitungssysteme - Prüfverfahren der Schellen-festigkeit

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This European Standard was approved by CEN on 1996-12-27. 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

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.

The European Standards exist 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.

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

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

Page 2

EN 12095:1997

#### **Foreword**

This European standard has been prepared by Technical Committee CEN/TC 155 "Plastics piping systems and ducting systems", the secretariat of which is held by NNI.

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 1997, and conflicting national standards shall be withdrawn at the latest by August 1997.

This European standard has been prepared in liaison with CEN/TC 128 "Roof covering products for discontinuous laying".

The material-dependent parameters and/or performance requirements are incorporated in the System Standard(s) concerned.

This standard is one of a series of standards on test methods which support System Standards for plastics piping systems and ducting systems.

According to the CEN/CENELEC Internal Regulations, the national standards organizations of the foliowing 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 the United Kingdom.

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Page 3 EN 12095:1997

## 1 Scope

This standard specifies a method for testing the strength of fixing brackets intended to support plastics rainwater downpipe systems used externally on buildings.

It is applicable to both metal and plastics brackets, and determines the amount of residual deformation after removal of a specified test load.

## 2 Principle

A fixing bracket is fitted in accordance with the manufacturer's instructions to a vertical supporting surface in such a manner that it acts as an anchor bracket for vertical pipework. A coaxial vertical load is applied and the residual deflection recorded after removal of the load.

NOTE: It is assumed that the following test parameters are set by the standard making reference to this standard:

- a) the test load (see 3.3 and 6.3);
- b) the number of test pieces (see 4.2);
- c) conditioning requirements, if other than 16 h at (23  $\pm$  5) °C (see clause 5).

## 3 Apparatus

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3.1 A rainwater downpipe socket with a (500 + 10) mm length of the same sized pipe, which can be inserted into the socket. <u>SIST EN 12095:1999</u>

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- 3.2 An intermediate guide bracket, sized to accept the pipe (3.1) and allow it to move longitudinally.
- 3.3 A means of applying the required test load (see 6.3) to the socket (3.1) when the socket is supported by the bracket under test.
- 3.4 A vertical wall or frame, capable of supporting the test apparatus and load (see clause 6 and figure 1).
- 3.5 Means for measuring the residual vertical deformation relative to a horizontal datum plane (see 6.4), to  $\pm$  0,5 mm (see figures 1 and 2).

## 4 Test pieces

- 4.1 The test piece shall consist of a bracket fitted to the socket (3.1) in such a way that the bracket acts as an anchor preventing any relative downward movement of the socket.
- 4.2 The number of test pieces shall be as specified in the referring standard.

## Page 4

EN 12095:1997

## 5 Conditioning

Unless otherwise specified in the referring standard, the test piece shall be conditioned for at least 16 h at  $(23 \pm 5)$  °C immediately prior to testing in accordance with clause 6.

## 6 Procedure

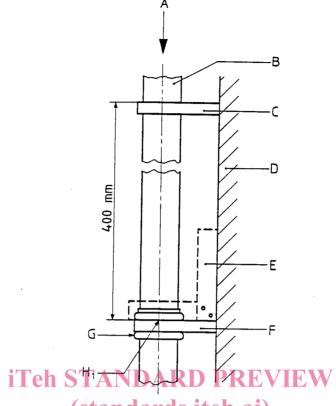
- 6.1 Conduct the following procedures in an ambient temperature of (23  $\pm$  5) °C:
- **6.2** Fix the test piece to a vertical supporting wall or frame, in accordance with the manufacturer's instructions. Fit the socket (3.1) to the test piece bracket in such a way that the bracket acts as an anchor fully supporting the socket with the socket axis vertical (see figure 1). Fit the pipe (3.1) into the socket and attach the intermediate bracket (3.2) to the pipe and supporting wall 400 mm above the socket. Determine the location of position 1  $(H_1)$  (see figures 1 and 2).
- **6.3** Apply the test load specified in the referring standard to the socket so that the load produces the appropriate coaxial downward force on the socket for a period of  $(30 \pm 5)$  min and then remove the load.
- **6.4** 24 h after removal of the load, measure and record the residual vertical deformation as the distance,  $h_r$ , between position 1 and position 2 shown in figure 2, using the set square or equivalent (3.5) as the datum plane and ards. iteh. ai

## 7 Test report

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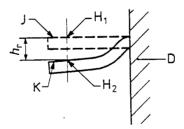
The test report shall include the following information:

- a) the reference to this standard and to the referring standard;
- b) complete identification of the bracket, including material, size, type and batch from which the bracket was taken;
- c) the load applied;
- d) the residual vertical deformation,  $h_r$ , in millimetres;
- e) any factors which may have affected the results, such as any incidents or any operating details not specified in this standard;
- f) the date of test.



Α Load (standards.iteh.ai) В Pipe С Guide bracket (3.2) D Vertical wall or frame SIST EN 12095:1999 E Engineers set/square on equivalent and ards/sist/a938407f-cf52-4748-83a4-F Pipe bracket under test af572daf4bb7/sist-en-12095-1999 G Socket (3.1) Position 1  $H_1$ 

Figure 1: Typical arrangement



D Vertical wall or frame

H<sub>1</sub> Position 1

H<sub>2</sub> Position 2 (on pipe centreline after unloading)

h<sub>r</sub> Residual deformation

J Top of bracket before loading

K Top of bracket after unloading

Figure 2: Residual deformation of the bracket