SLOVENSKI PREDSTANDARD

PSIST prEN 1565-6:1999

prva izdaja
julij 1999

Cevni sistemi iz polimernih materialov za nizko- in visokotemperaturne odvodne sisteme v zgradbah - Stiren-kopolimer blendi (SAN+PVC) - 6. del: Priporočen postopek za vgradnjo

Plastics piping systems for soil and waste discharge (low and high temperature) within the building structure - Styrene copolymer blends (SAN+PVC) - Part 6: Recommended practice for installation

ICS 91.140.80

Referenčna številka
PSIST prEN 1565-6:1999(en)

DRAFT
prEN 1565-6

EUROPEAN STANDARD

NORME EUROPEENNE

EUROPÄISCHE NORM

April 1995

ICS

Descriptors :

English version

Plastics piping systems for soil and waste discharge (low and high temperature) within the building structure - Styrence copolymer blends (SAN + PVC) - Part 6: Recommended practice for installation

Systèmes de canalisations en plastique pour l'évacuation des eaux-vannes et des eaux usées (à basse et à haute température) à l'intérieur de la structure des bâtiments - Mélanges de copolymères de styrène (SAN + PVC) - Partie 6: Pratiques recommandées pour la pose

Kunststoff-Rohrleitungssysteme für Abwasserleitungen (niederer und hoher Temperatur) innerhalb der Gebäudestruktur - Styrol-copolymer-blends (SAN + PVC) - Teil 6: Empfehlungen für die Verlegug

This draft European Standard is submitted to the CEN members for CEN enquiry. It has been drawn up by Technical Committee CEN/TC 155 .

If this draft becomes a European Standard, 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.

This draft European Standard was established by CEN 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

Foreword

This Part of EN 1565 was prepared by CEN/TC 155 "Plastics piping systems and ducting systems" in liaison with CEN/TC 165 "Waste water engineering". It received approval from the CEN members on (dd-mm-yy).

No existing European Standard is superseded by this standard.

This standard is a Part of a System Standard for plastics piping systems of a particular material for a specified application. There are a number of such System Standards.

System Standards are based on the results of the work undertaken in ISO/TC 138 "Plastics pipes, fittings and valves for the transport of fluids", which is a Technical Committee of the International Organization for Standardization (ISO).

They are supported by separate standards on test methods and by standards on ancillary equipment to which references are made throughout the System Standard.

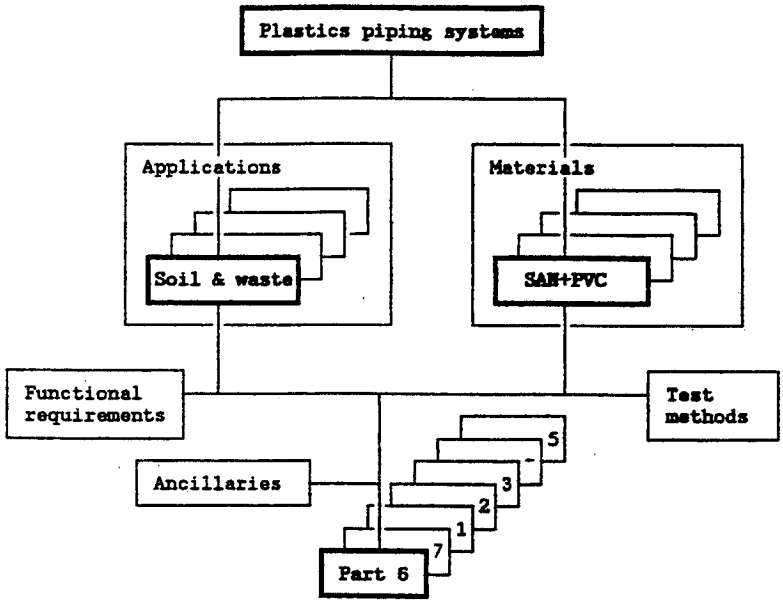
The System Standards are consistent with general standards on functional requirements and on recommended practice for installation.

EN 1565 consists of the following Parts[1)], under the general title Plastics piping systems for soil and waste discharge (low and high temperature) within the building structure - Styrene copolymer blends, (SAN+PVC)

- Part 1: General
- Part 2: Pipes
- Part 3: Fittings
- Part 5: Fitness for purpose of the system
- Part 6: Recommended practice for installation (this standard)
- Part 7: Assessment of conformity

1) This System Standard does not incorporate a Part 4: "Ancillary equipment". For ancillary equipment reference is made to separate standards.

The following diagram indicates the place of this standard within the CEN framework for plastics piping systems:



At the date of publication of this standard, System Standards for piping systems of other plastics materials used for the same application are the following:

NOTE: All listed System Standards are under preparation.

EN 1329 *Plastics piping systems for soil and waste discharge (low and high temperature) within the building structure - Unplasticized poly(vinyl chloride) (PVC-U)*

EN 1451 *Plastics piping systems for soil and waste discharge (low and high temperature) within the building structure - Polypropylene (PP)*

EN 1453 *Plastics piping systems with structured wall pipes for soil and waste discharge (low and high temperature) within the building structure - Unplasticizted poly(vinyl chloride) (PVC-U)*

EN 1455	*Plastics piping systems for soil and waste discharge (low and high temperature) within the building structure - Acrylonitrile-butadiene-styrene (ABS)*
EN [1519]	*Plastics piping systems for soil and waste discharge (low and high temperature) within the building structure - Polyethylene (PE)*
EN 1565	*Plastics piping systems for soil and waste discharge (low and high temperature) within the building structure - Chlorinated poly(vinyl chloride) (PVC-C)*

Introduction

The System standard, of which this is Part 6, specifies the requirements for a piping system and its components made from styrene copolymer blends (SAN+PVC). The piping system is intended to be used for soil and waste discharge systems (low and high temperature) inside buildings (marked with "B").

For material and components, requirements and test methods are specified in Parts 1 to 3 of this System Standard. Characteristics of fitness for purpose (mainly for assemblies) are included in part 5. Part 7 covers the requirements for the assessement of conformity.

This Part of EN 1565 covers the recommended practice for installation of the plastic piping system.

In this standard, the most important recommendations are expressed by the use of "should" or of the imperative. These are strongly recommended. Guidance for installation is presented, e.g. by the use of "may" or "is recommended", for consideration as a matter of judgement in each case.

NOTE: The following point is requested to be commented by CEN members, concerning EN 1565-6, because it could not be solved by CEN/TC 155/WG 4 experts :
As some countries are rejecting such a practice, have you any problem with clause 8.1.2 "Concreting of SAN+PVC pipework - Ring seal assemblies"? If you accept it, please give field experience showing it is trouble-free, in order to convince the opposers.

1 Scope

This Part of EN 1565 specifies the recommended practice for installation of Styrene copolymer blends (SAN+PVC) piping systems in the field of soil and waste discharge (low and high temperature) inside buildings (marked with "B").

NOTE 1: This document provides for installation techniques but it is important that the manufacturer's fixing instructions and material handling advice are taken into account to ensure reliable and trouble-free drainage systems.

In conjunction with one of the Parts 1 to 3, 5 and 7 of EN 1565, and with the appropriate Part(s) of EN [155wi132], it is applicable to SAN+PVC pipes, fittings, ancillary components and their joints and to joints with components (marked with "B" or "BD") of other plastics and non-plastics materials intended to be used for the following purposes:

a) soil and waste discharge pipework for the conveyance of domestic waste waters (low and high temperature);

b) ventilation pipework associated with a);

c) rainwater pipework within the building structure (figure 2).

It is applicable to pipes and fittings, marked with "B", which are intended to be used above ground only.

NOTE 2: Since the term "within building structure" generally refers to all gravity discharge pipework within a building, including the elements installed below the slab and buried in the ground, nevertheless for the purpose of this standard this term does not include any installation buried in ground, because no element of a SAN+PVC discharge system conforming to EN 1565 is designed for "BD" application.

This standard is not applicable to pipework that passes under the building without any connection from the discharge system.(see 3.1).

This standard is also applicable to the techniques of jointing to components made from materials other than SAN+PVC.

NOTE 3: Components conforming to any of the referred Systems Standards listed in the foreword can be used with pipes and fittings conforming to EN 1565, provided they conform to the requirements for joint dimensions of the applicable part(s) of EN 1565 and to the requirements of EN 1565-5.

2 Normative references

This 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 Standard only when incorporated in it by amendment or revision.
For undated references the latest edition of the publication referred to applies.

NOTE : All listed European Standards are under preparation.

EN 1565-1 *Plastics piping systems for soil and waste discharge (low and high temperature) within the building structure - Styrene copolymer blends (SAN+PVC) - Part 1: General*

EN 1565-2 *Plastics piping systems for soil and waste discharge (low and high temperature) within the building structure - Styrene copolymer blends (SAN+PVC) - Part 2: Pipes*

EN 1565-3 *Plastics piping systems for soil and waste discharge (low and high temperature) within the building structure - Styrene copolymer blends (SAN+PVC) - Part 3: Fittings*

EN 1565-5 *Plastics piping systems for soil and waste discharge (low and high temperature) within the building structure - Styrene copolymer blends (SAN+PVC) - Part 5: Fitness for purpose of the system*

3 Terminology, definitions, symbols and abbreviations

For the purposes of this standard, the following definitions, symbols and abbreviations apply.

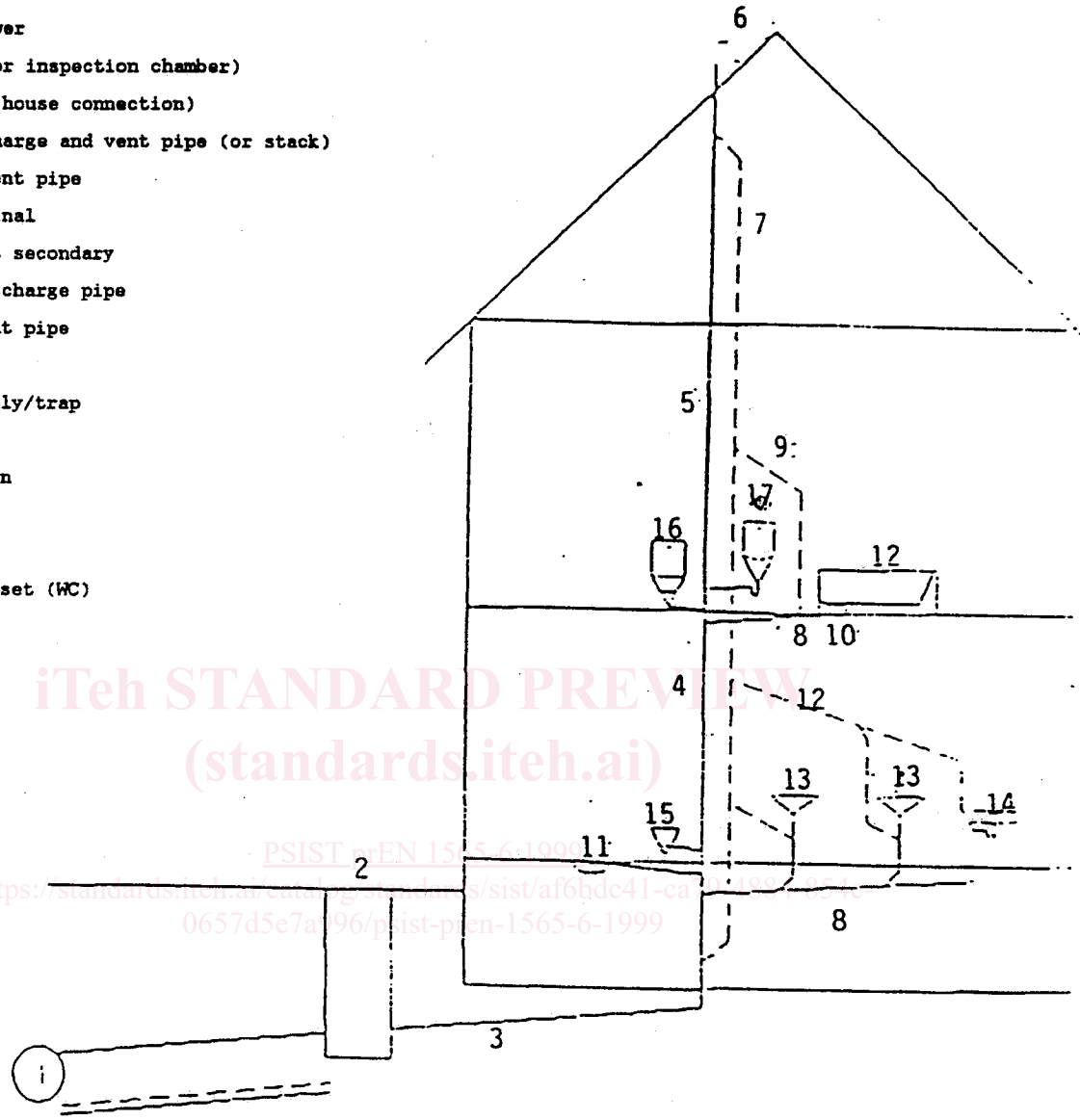
3.1 General terminology for sanitary pipework above-ground, sanitary appliances and building drainage

For the general terminology, see figures 1 and 2 (the figures are diagrammatic only).

National regulation may require separate drainpipe systems for foul and rainwater.

Key

1 - Public sewer
2 - Manhole (or inspection chamber)
3 - Drain (or house connection)
4 - Main discharge and vent pipe (or stack)
5 - Primary vent pipe
6 - Vent terminal
7 - Stack vent secondary
8 - Branch discharge pipe
9 - Branch vent pipe
10 - Trap
11 - Florr gully/trap
12 - Bath
13 - Wash basin
14 - Sink
15 - Bidet
16 - Water closet (WC)
17 - Urinal

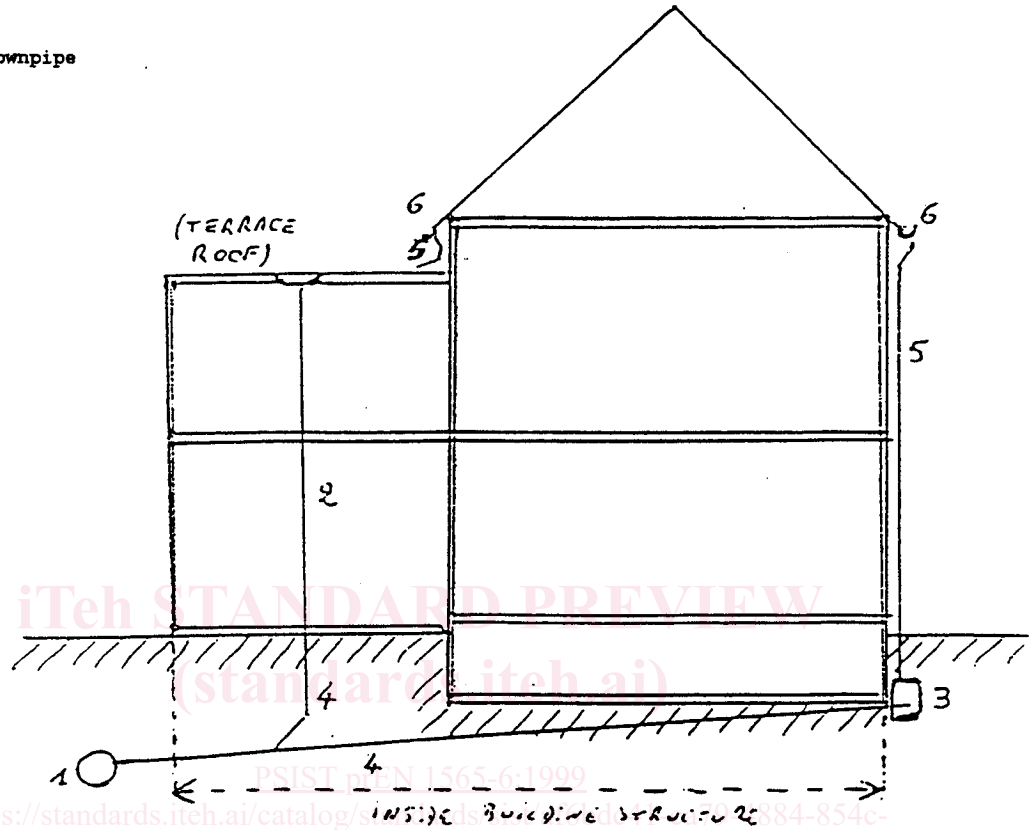


NOTE: Drain pipes buried in ground within the building structure (key 3) are not covered by this standard.

Figure 1: Example of a soil and waste discharge system

Key

1 - Public sewer
2 - Rainwater pipework within the building structure
3 - Manhole (or inspection chamber)
4 - Drain
5 - Rainwater downpipe
6 - Gutter



NOTE: Drain pipes buried in ground within the building structure (key 3 and 4), rainwater downpipes fixed externally onto the building (key 5), and gutters (key 6), are not covered by this standard.

Figure 2: Example of rainwater pipes outside the building and within the building structure

3.2 Definitions, symbols and abbreviations

For the purposes of this standard, the definitions given in Parts 1, 2 and 3 of EN 1565 apply, together with the following.

3.2.1 Definitions

3.2.1.1 **socket length** (type N or type L): A length in relation with the length of engagement, *A*, of a ring seal socket, as specified in EN 1565-2 and in EN 1565-3, which is designated either normal (type N), or long (type L).

3.2.1.2 **flexible leg** (L_1 and L_2): The length between two fixed points of that part of a solvent cemented system which presents a bend, the two branches of which are designated L_1 and L_2.

3.2.1.3 **expansion gap** (E, E_1, E_2): The distance between the bottom of a socket and the spigot of the inserted component allowing expansion of the system.

3.2.2 **Symbols**

3.2.2.1 **Symbols for installation**

E :	expansion gap (see 6.1.3)
E_1, E_2 :	expansion gap (see 7.4)
$L_{C,max}$:	maximum recommended distance between anchored brackets in concreted-in condition (see 8.1.2.4)
L_F:	free length between fixed points in above-ground condition (see 6.1.3)
$L_{max.}$:	recommended maximum distance between support centres in above-ground condition (see 7.2)

3.2.2.2 **Sockets for solvent cement jointing** (see figure 3)

The design symbol for solvent cement sockets (type CS, short) is given in figure 3.

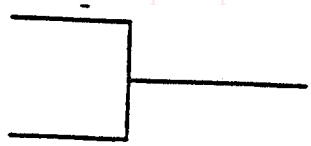


Figure 3: Design symbol for solvent cement socket

3.2.2.3 Sockets for ring seal jointing (see figure 4)

The design symbols for type N and type L ring seal sockets are given in figure 4.

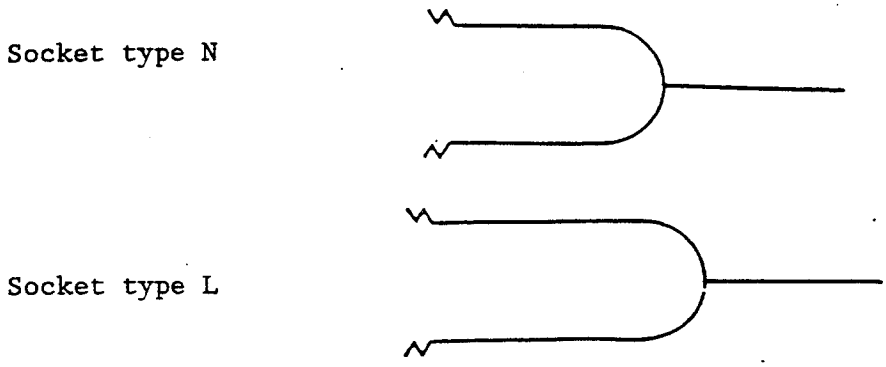


Figure 4: Design symbols for ring seal sockets

3.2.2.4 Brackets (see figure 5)

Design symbols for brackets are given in figure 5.

Figure 5: Design symbols for brackets

4 Design

4.1 Discharge systems of SAN+PVC are primarily designed for waste discharges from domestic origin including from washing and dishwashing machines, but excluding discharges from public laundries, launderettes, or other installations where long periods of high temperature discharge occur. For the design of systems for other discharges see clause 14.

4.2 The requirements for the calculation of the flow capacity of plumbing installations, specified in other European Standards and/or in national or local regulations, should be applied.