

Potrubné systémy z plastov na kanalizácie vnútri konštrukcie budov (s nízkou a vysokou teplotou) Nemäkčený polyvinylchlorid (PVC-U) Časť 1: Špecifikácie rúr, tvaroviek a systému

STN EN 1329-1+A1

64 3224

Táto norma obsahuje anglickú verziu európskej normy. This standard includes the English version of the European Standard.

Táto norma bola oznámená vo Vestníku ÚNMS SR č. 08/18

Obsahuje: EN 1329-1:2014+A1:2018

Oznámením tejto normy sa ruší STN EN 1329-1 (64 3224) z augusta 2014 STN EN 1329-1+A1: 2018

# EUROPEAN STANDARD NORME EUROPÉENNE EUROPÄISCHE NORM

EN 1329-1:2014+A1

March 2018

ICS 23.040.01

## **English Version**

Plastics piping systems for soil and waste discharge (low and high temperature) within the building structure -Unplasticized poly(vinyl chloride) (PVC-U) - Part 1: Specifications for pipes, fittings and the systems

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 - Poly(chlorure de vinyle) non plastifié (PVC-U) - Partie 1 : Spécifications pour tubes, raccords et le système

Kunststoff-Rohrleitungssysteme zum Ableiten von Abwasser (niedriger und hoher Temperatur) innerhalb der Gebäudestruktur - Weichmacherfreies Polyvinylchlorid (PVC-U) - Teil 1: Anforderungen an Rohre, Formstücke und das Rohrleitungssystem

This European Standard was approved by CEN on 1 December 2013 and includes Amendment 1 approved by CEN on 27 November 2017.

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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**

This document (EN 1329-1:2014+A1:2018) has been prepared by Technical Committee CEN/TC 155 "Plastics piping systems and ducting systems", the secretariat of which is held by NEN.

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of an identical text or by endorsement, at the latest by September 2018, and conflicting national standards shall be withdrawn at the latest by September 2018.

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 includes Amendment 1 approved by CEN on 11 November 2017.

This document supersedes A EN 1329-1:2014 (A).

The start and finish of text introduced or altered by amendment is indicated in the text by tags [A].

EN 1329 consists of the following parts:

- EN 1329-1, Plastics piping systems for soil and waste discharge (low and high temperature) within the building structure Unplasticized poly(vinyl chloride) (PVC-U) Part 1: Specifications for pipes, fittings and the system [the present document];
- CEN/TS 1329-2, Plastics piping systems for soil and waste discharge (low and high temperature) within the building structure Unplasticized poly(vinyl chloride) (PVC-U) Part 2: Guidance for the assessment of conformity [Technical Specification].

The main changes are:

- specification of the scope with restriction to solid wall;
- updating of the normative references;
- alignments of products characteristics for BD applications with UD applications (EN 1401-1) for  $d_{\rm n} \ge 110$  mm;
- introduction of alternative test methods to DCMT for the evaluation of the gelation of PVC;
- explicit integration of designs of fittings.

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 method 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.

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, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and the United Kingdom.

# 1 Scope

This part of EN 1329 specifies the requirements for solid wall unplasticized poly(vinyl chloride) (PVC-U) pipes, fittings and the system intended for:

- soil and waste discharge applications (low and high temperature) inside buildings (application area code "B");
- soil and waste discharge applications (low and high temperature) for both inside buildings and buried in ground within the building structure (application area code "BD").
- NOTE 1 The intended use is reflected in the marking of products by "B" or "BD".
- NOTE 2 For use buried in ground within the building structure are intended only those components (marked with "BD") with nominal outside diameters equal to or greater than 75 mm.

This part of EN 1329 is also applicable to PVC-U pipes, fittings and the system intended for the following purposes:

- ventilating part of the pipework in association with discharge applications;
- rainwater pipework within the building structure.

It also specifies the test parameters for the test method referred to in this European Standard.

This European Standard covers a range of nominal sizes, a range of pipes and fittings series and gives recommendations concerning colours.

NOTE 3 It is the responsibility of the purchaser or specifier to make the appropriate selections from these aspects, taking into account their particular requirements and any relevant national regulations and installation practices or codes.

For external above ground application additional requirements depending on the climate should be agreed between the manufacturer and the user.

NOTE 4 Pipes, fittings and other components conforming to any of the plastics product standards listed in Annex B can be used with pipes and fittings conforming to this European Standard, provided they conform to the requirements for joint dimensions given in Clause 6 and to the requirements of Table 24.

NOTE 5 Joints and adhesives are considered to be part of the system as covered in the scope.

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

EN 681-2, Elastomeric Seals — Materials requirements for pipe joint seals used in water and drainage applications — Part 2: Thermoplastic elastomers

EN 1401-1:2009, Plastics piping systems for non-pressure underground drainage and sewerage — Unplasticized poly(vinyl chloride) (PVC-U) — Part 1: Specifications for pipes, fittings and the system

EN 1905, Plastics piping systems — Unplasticized poly(vinyl chloride) (PVC-U) pipes, fittings and material — Method for assessment of the PVC content based on total chlorine content

EN 10204:2004, Metallic products — Types of inspection documents

EN 14680, Adhesives for non-pressure thermoplastics piping systems — Specifications

EN 14814, Adhesives for thermoplastic piping systems for fluids under pressure — Specifications

EN ISO 472, Plastics — Vocabulary (ISO 472)

EN ISO 580, Plastics piping and ducting systems — Injection-moulded thermoplastics fittings — Methods for visually assessing the effects of heating (ISO 580)

EN ISO 1043-1, Plastics - Symbols and abbreviated terms — Part 1: Basic polymers and their special characteristics (ISO 1043-1)

EN ISO 1167-1, Thermoplastics pipes, fittings and assemblies for the conveyance of fluids — Determination of the resistance to internal pressure — Part 1: General method (ISO 1167-1)

EN ISO 1167-2, Thermoplastics pipes, fittings and assemblies for the conveyance of fluids — Determination of the resistance to internal pressure — Part 2: Preparation of pipe test pieces (ISO 1167-2)

EN ISO 1183-1, Plastics — Methods for determining the density of non-cellular plastics — Part 1: Immersion method, liquid pyknometer method and titration method (ISO 1183-1)

EN ISO 2505, Thermoplastics pipes — Longitudinal reversion — Test method and parameters (ISO 2505)

EN ISO 3126, Plastics piping systems — Plastics components — Determination of dimensions (ISO 3126)

EN ISO 6259-1, Thermoplastics pipes — Determination of tensile properties — Part 1: General test method (ISO 6259-1)

EN ISO 13229, Thermoplastics piping systems for non-pressure applications — Unplasticized poly(vinyl chloride) (PVC-U) pipes and fittings — Determination of the viscosity number and K-value (ISO 13229)

ISO 2507-1, Thermoplastics pipes and fittings — Vicat softening temperature — Part 1: General test method

ISO 3127, Thermoplastics pipes — Determination of resistance to external blows — Round-the-clock method

ISO 6259-2, Thermoplastics pipes — Determination of tensile properties — Part 2: Pipes made of unplasticized poly(vinyl chloride) (PVC-U), chlorinated poly (vinyl chloride) (PVC-C) and high-impact poly (vinyl chloride) (PVC-HI)

ISO 9852, Unplasticized poly(vinyl chloride) (PVC-U) pipes — Dichloromethane resistance at specified temperature (DCMT) — Test method

ISO 11173, Thermoplastics pipes — Determination of resistance to external blows — Staircase method

ISO 13254, Thermoplastics piping systems for non-pressure applications — Test method for watertightness

ISO 13255, Thermoplastics piping systems for soil and waste discharge inside buildings — Test method for airtightness of joints

ISO 13257:2010, Thermoplastics piping systems for non-pressure applications — Test method for resistance to elevated temperature cycling

ISO 13259, Thermoplastics piping systems for underground non-pressure applications — Test method for leaktightness of elastomeric sealing ring type joints

ISO 18373-1, Rigid PVC pipes — Differential scanning calorimetry (DSC) method — Part 1: Measurement of the processing temperature

koniec náhľadu – text ďalej pokračuje v platenej verzii STN