

STN	Potrúbné systémy z plastov na kanalizácie vnútri konštrukcie budov (s nízkou a vysokou teplotou) Nemäkčený polyvinylchlorid (PVC-U) Časť 1: Požiadavky na rúry, tvarovky a systém	STN EN 1329-1 64 3224
------------	--	---

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

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. 04/21

Obsahuje: EN 1329-1:2020

Oznámením tejto normy sa ruší
STN EN 1329-1+A1 (64 3224) zo septembra 2018

132355

EUROPEAN STANDARD

EN 1329-1

NORME EUROPÉENNE

EUROPÄISCHE NORM

December 2020

ICS 23.040.20; 91.140.80

Supersedes EN 1329-1:2014+A1:2018

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 system

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 2 November 2020.

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.

CEN members are the national standards bodies of Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Republic of North Macedonia, Romania, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and United Kingdom.



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

CEN-CENELEC Management Centre: Rue de la Science 23, B-1040 Brussels

Contents	Page
European foreword.....	4
1 Scope	5
2 Normative references	5
3 Terms and definitions	7
4 Symbols and abbreviations	10
4.1 Symbols.....	10
4.2 Abbreviations.....	10
5 Material	11
5.1 General.....	11
5.2 Pipe material for BD application.....	11
5.2.1 Use of mineral modifier.....	11
5.2.2 Additional requirements.....	11
5.3 Additional requirements for fitting material for BD application.....	12
5.4 Fabricated fitting material.....	13
5.5 Utilization of non-virgin material.....	13
5.6 Sealing ring retaining means material.....	13
6 General characteristics	13
6.1 Appearance.....	13
6.2 Colour.....	13
6.3 External above ground application.....	13
6.4 Reaction to fire.....	13
7 Geometrical characteristics	14
7.1 General.....	14
7.2 Dimensions of pipes.....	14
7.2.1 Outside diameter.....	14
7.2.2 Out-of-roundness.....	15
7.2.3 Length of pipes.....	15
7.2.4 Chamfering.....	16
7.2.5 Wall thickness.....	16
7.2.6 Dimensions of sockets.....	18
7.3 Dimensions of fittings.....	18
7.3.1 General.....	18
7.3.2 Outside diameters.....	19
7.3.3 Design lengths (Z).....	19
7.3.4 Wall thicknesses.....	19
7.4 Diameters and lengths of sockets and spigot.....	23
7.4.1 Adhesive joint sockets and spigot.....	23
7.4.2 Ring seal sockets and spigot.....	25
7.4.3 One-piece expansion couplings for adhesive joint sockets and spigot.....	28
7.5 Types of fittings.....	29
8 Mechanical characteristics	34
8.1 Mechanical characteristics of pipes.....	34
8.1.1 Impact resistance.....	34
8.1.2 Additional mechanical requirements.....	36

8.2	Mechanical characteristics of fittings	36
9	Physical characteristics	36
9.1	Physical characteristics of pipes	36
9.2	Physical characteristics of fittings	38
10	Performance requirements	38
11	Sealing rings	39
12	Adhesives	40
13	Marking	40
13.1	General	40
13.2	Minimum required marking of pipes	40
13.3	Minimum required marking of fittings	41
13.4	Additional marking	42
	Annex A (normative) Utilization of non-virgin material	43
A.1	General	43
A.2	Own reprocessed material	43
A.3	External reprocessed and/or recycled materials with agreed specifications	43
	Annex B (informative) Product standards	45
	Bibliography	46

EN 1329-1:2020 (E)**European foreword**

This document (EN 1329-1:2020) 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 June 2021, and conflicting national standards shall be withdrawn at the latest by June 2021.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. CEN shall not be held responsible for identifying any or all such patent rights.

This document supersedes EN 1329-1:2014+A1:2018.

The main changes compared to the previous version EN 1329-1:2014+A1:2018:

- review of non-virgin material use and alignment with recently revised EN 1401-1;
- addition of subclause 6.4 Reaction to fire;
- updating in accordance with the latest template;
- updating of normative references.

EN 1329 consists of the following parts, under the general title *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;*
- *Part 2: Guidance for the assessment of conformity (technical specification).*

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, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Republic of North Macedonia, Romania, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and the United Kingdom.

1 Scope

This document specifies the requirements for solid wall pipes with smooth internal and external surfaces, extruded from the same formulation throughout the wall, fittings and the system of unplasticized poly(vinyl chloride) (PVC-U) piping systems intended for soil and waste discharge applications (low and high temperature):

- inside buildings (application area code “B”);
- 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 Application “B” covers uses above ground inside the building, or outside buildings fixed onto the wall.

NOTE 3 Multilayer pipes with different formulations throughout the wall and foamed core pipes are covered by EN 1453-1 [1].

NOTE 4 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.

NOTE 5 EN 476 [2] specifies the general requirements for components used in discharge pipes, drains and sewers for gravity systems. Pipes and fittings conforming to this standard fully meet these requirements.

This document 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.

This document also specifies the test parameters for the test methods that are referred to.

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

NOTE 6 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.

NOTE 7 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 document, provided they conform to the requirements for joint dimensions given in Clause 7 and to the requirements of Table 26.

2 Normative references

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements of this document. 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 1329-1:2020 (E)

EN 1401-1, *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 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 1158, *Plastics — Vinyl chloride homopolymers and copolymers — Determination of chlorine content (ISO 1158)*

EN ISO 1167-1:2006, *Thermoplastics pipes, fittings and assemblies for the conveyance of fluids — Determination of the resistance to internal pressure — Part 1: General method (ISO 1167-1:2006)*

EN ISO 1167-2:2006, *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 1167-2:2006)*

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

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

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

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

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

EN ISO 3451-5, *Plastics — Determination of ash — Part 5: Poly(vinyl chloride) (ISO 3451-5)*

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

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

EN ISO 11173, *Thermoplastics pipes — Determination of resistance to external blows — Staircase method (ISO 11173)*

EN ISO 13254, *Thermoplastics piping systems for non-pressure applications — Test method for watertightness (ISO 13254)*

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

EN ISO 13257:2018, *Thermoplastics piping systems for non-pressure applications — Test method for resistance to elevated temperature cycling (ISO 13257:2018)*

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

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

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