BSI Standards Publication

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

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National foreword

This British Standard is the UK implementation of EN 1329-1:2014+A1:2018. It supersedes BS EN 1329-1:2014, which is withdrawn.

It is complemented by BS 4514:2001.

The start and finish of text introduced or altered by amendment is indicated in the text by tags. Tags indicating changes to CEN text carry the number of the CEN amendment. For example, text altered by CEN amendment A1 is indicated by ⟨A1⟩ ⟨A1⟩.

The UK participation in its preparation was entrusted to Technical Committee PRI/88/1, Plastics piping for non-pressure applications, who wish to bring the following important information to the attention of readers of this standard.

Except for nominal size DN/OD 82, products conforming to BS EN 1329-1 will be generally compatible with those of the same size in accordance with BS 4514:2001 and BS 5255:1989. The DN/OD sizes 36, 43 and 56 correspond exactly with the 1 1/4, 1 1/2 and 2 sizes respectively in BS 5255:1989.

In the case of nominal size DN/OD 82 as specified in EN 1329-1:2014, the minimum mean outside diameter is 82.0 mm. Existing installed piping systems conforming to BS 4514 are based on a nominal pipe size 82 having a minimum diameter of 82.4 mm. The UK committee has concluded that joints comprising direct connection of two components conforming respectively to these two different size ranges are unlikely to remain effective and safe. The UK committee therefore advises purchasers and installers not to regard these two sizes (i.e. DN/OD 82 conforming to EN 1329-1:2014 and nominal size 82 according to BS 4514:2001) as mutually compatible unless the manufacturer specifically declares otherwise and/or connections between zones of differing pipework are clear and effected via appropriate adapters or seals.

The UK committee gives the following advice concerning the specification of piping components used with piping systems conforming to this British Standard but not detailed in EN 1329-1:2014.

1. BS 4514:2001 remains valid to cater for system components or requirements not covered by EN 1329-1:2014, including the 82.4 mm minimum o.d. size, the minimum opening dimensions of access fittings, design of swept fittings, connectors to WC pans and stand-off dimensions of pipe and fitting clips.

2. No advice is given in EN 1329-1:2014 in respect of threaded components. The UK committee recommends that the current requirements in BS 5255:1989 are retained, i.e. if the PVC fitting is intended to adapt to a threaded metal component then the thread form should conform to either BS EN 10226-1 or BS EN ISO 228-1.

3. Although general advice is given for the specification of swept bends and branch connections by suggesting that they follow ISO 265-1 (see clause 6.3.4), when used in England and Wales all such products must conform to the requirements of The Building Regulations 2002 (amended 2013) Approved Document H1, 1.17 and 1.26. Analogous provisions apply in Scotland and Northern Ireland. To this end, more specific detail is given in BS 4514:2001.

EN 1329-1:2014 is specific to internal installations and does not include requirements necessary for external installation, which is commonplace and remains allowed in the UK. Pipes and fittings intended for outdoor use should additionally conform to the weathering resistance requirement specified in BS 4514:2001. The responsible UK committee gives the following advice concerning the selection and installation of piping components and systems conforming to this British Standard.

1. In respect of fire regulations, the components and systems should be installed as though comprising PVC products conforming to BS 4514 or BS 5255 and hence The Building Regulations Approved Document B 2006 (amended 2013), B3 will apply in England and Wales. Analogous provisions apply in Scotland and Northern Ireland.

2. The products should only be used in application area B, i.e. suspended from brackets above ground and installed in accordance with BS EN 12056-2 and its National Annex using the M or L socket variants as specified.

For underground installations, see BS EN 1401-1 or equivalent product specifications for such situations and take account of current national installation practices, e.g. BS EN 1610 and BS EN 752.

CAUTION EN 1329-1:2014 does not necessarily detail all the precautions necessary to meet the requirements of the Health and Safety at Work etc. Act 1974. Attention should be paid to any appropriate safety precautions and the test methods referred to in EN 1329-1 should be operated only by trained personnel.

A list of organizations represented on this committee can be obtained on request to its secretary.

This publication does not purport to include all the necessary provisions of a contract. Users are responsible for its correct application.

Published by BSI Standards Limited 2018

ISBN 978 0 580 95584 6

ICS 23.040.01

Compliance with a British Standard cannot confer immunity from legal obligations.

This British Standard was published under the authority of the Standards Policy and Strategy Committee on 28 February 2014.

Amendments/corrigenda issued since publication

Date	Text affected
31 July 2014	Additional national foreword text inserted
31 October 2018	Implementation of CEN amendment A1:2018

EUROPEAN STANDARD **EN 1329-1:2014+A1**

NORME EUROPÉENNE

EUROPÄISCHE NORM

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.

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.

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

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Ref. No. EN 1329-1:2014+A1:2018 E

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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 A1 EN 1329-1:2014 A1.

The start and finish of text introduced or altered by amendment is indicated in the text by tags A1 A1.

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 $d_n \geq 110$ 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*