

**SLOVENSKI STANDARD**  
**SIST EN 1329-1:2014/oprA1:2017**  
**01-januar-2017**

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**Cevni sistemi iz polimernih materialov za (nizko- in visokotemperaturne) odvodne sisteme v zgradbah - Nemehčan polivinilklorid (PVC-U) - 1. del: Zahteve za cevi, fitinge in sistem**

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

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

**Ta slovenski standard je istoveten z:** EN 1329-1:2014/prA1

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**ICS:**

23.040.01	Deli cevovodov in cevovodi na splošno	Pipeline components and pipelines in general
91.140.80	Drenažni sistemi	Drainage systems

**SIST EN 1329-1:2014/oprA1:2017** en,fr,de



EUROPEAN STANDARD  
NORME EUROPÉENNE  
EUROPÄISCHE NORM

**DRAFT**  
**EN 1329-1:2014**  
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ICS 23.040.01; 91.140.80

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) (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 draft amendment is submitted to CEN members for enquiry. It has been drawn up by the Technical Committee CEN/TC 155.

This draft amendment A1, if approved, will modify the European Standard EN 1329-1:2014. If this draft becomes an amendment, CEN members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for inclusion of this amendment into the relevant national standard without any alteration.

This draft amendment 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 CEN-CENELEC Management Centre has the same status as the official versions.

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Recipients of this draft are invited to submit, with their comments, notification of any relevant patent rights of which they are aware and to provide supporting documentation.

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

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**EN 1329-1:2014/prA1:2016 (E)****Contents**

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## **European foreword**

This document (EN 1329-1:2014/prA1:2016) has been prepared by Technical Committee CEN/TC 155 "Plastics piping systems and ducting systems", the secretariat of which is held by NEN.

This document is currently submitted to the CEN Enquiry.

## EN 1329-1:2014/prA1:2016 (E)

**1 General**

(for explanation purposes only)

The amendment of EN 1329-1 is proposed in order to align requirements and text with other newly revised standards, with regard to the assessment of gelation, and the assessment of impact resistance allowing the marking of "ice crystal symbols".

**2 Modifications to 7.1.1, Table 18**

*Replace the existing table with the following:*

**Table 18 — Mechanical characteristics of pipes**

Characteristics	Requirements	Test parameters			Test method	
			Application area B	Application area BD		
Impact resistance (Round-the-clock method)	TIR ≤ 10 %	Type of striker for: $d_n < 110 \text{ mm}$	d25		ISO 3127	
		$d_n \geq 110 \text{ mm}$	d90			
		Mass of striker	see Table 19 or Table 20, as applicable			
		Fall height of striker	see Table 19 or Table 20, as applicable			
		Conditioning medium	water or air			
Impact resistance (staircase method) <sup>b</sup>	H 50 ≥ 1 m max one break below 0,5 m	Conditioning and test temperature	(0 ± 1) °C	(-10 ± 1) °C	ISO 11173	
		Type of striker	d90	d90		
		Mass (kg) of striker for:				
		32 mm ≤ $d_n$ ≤ 41 mm	1,25			
		50 mm ≤ $d_n$ ≤ 63 mm	2,0			
		75 mm ≤ $d_n$ ≤ 80 mm	2,5	2,5		
		90 mm ≤ $d_n$ ≤ 100 mm	3,2	3,2		
		$d_n = 110 \text{ mm}$	4,0	4,0		
		$d_n = 125 \text{ mm}$	5,0	5,0		
		$d_n = 160 \text{ mm}$	8,0	8,0		
		$d_n = 200 \text{ mm}$	10,0	10,0		
		$d_n \geq 250 \text{ mm}$	12,5	12,5		

<sup>a</sup> If a manufacturer chooses to use indirect testing (see CEN/TS 1329-2 [9]), the preferred temperature is (23 ± 2) °C.

<sup>b</sup> Test only applicable according to 7.1.2.

### 3 Modifications to 7.1.2

*Replace the existing text with the following:*

"For pipes intended to be used in areas where the installation is carried out at low temperatures, it may be required in the national foreword to conform to the requirements of an impact test (staircase method) as specified in Table 18.

The pipes complying with the requirement of this clause shall be marked with "ice crystal symbols" in accordance with Table 25."

### 4 Modifications to 8.1, Table 21

*Replace the existing table with the following:*

**Table 21 — Physical characteristics of pipes**

Characteristic	Requirements	Test parameters		Test method
Vicat softening temperature (VST)	$\geq 79 \text{ }^{\circ}\text{C}$	Shall conform to ISO 2507-1		ISO 2507-1
Longitudinal reversion <sup>a</sup>  or cracks	$\leq 5 \%$ The pipe shall exhibit no bubbles	Temperature	$150 \text{ }^{\circ}\text{C}$	EN ISO 2505: liquid
		Immersion time	15 min	
	Or			
		Temperature	$150 \text{ }^{\circ}\text{C}$	EN ISO 2505: air
		Immersion time	30 min	
Resistance to dichloro-methane at a specific temperature <sup>b</sup> (Alternative test method to degree of gelation)	No attack <sup>c</sup>	Temperature of bath	$(15 \pm 1) \text{ }^{\circ}\text{C}$	ISO 9852
		Immersion time	30 min	
Uniaxial tensile test <sup>b</sup> (Alternative test method to degree of gelation)	Strain at break $\geq 80 \%$	Test speed Test temperature	$5 \pm 1 \text{ mm/min}$ $(23 \pm 2) \text{ }^{\circ}\text{C}$	EN ISO 6259-1 and ISO 6259-2
DSC <sup>b d</sup> (Alternative test method to degree of gelation)	B-onset temperature $\geq 185 \text{ }^{\circ}\text{C}$	Shall conform to ISO 18373-1	Number of test pieces: 4	ISO 18373-1
<p><sup>a</sup> In case of dispute, method "liquid bath" shall be used.</p> <p><sup>b</sup> The appropriate test method shall be chosen by the producer for factory production control, taking in account National regulation or internal health and safety policy. In case of dispute, the DSC method shall be used.</p> <p><sup>c</sup> Isolated spots less than 2 mm shall not be considered as an attack.</p> <p><sup>d</sup> This test is not intended to be used for factory production control.</p>				

## EN 1329-1:2014/prA1:2016 (E)

**5 Modifications to 12.2, Table 25**

Replace the existing table with the following:

**Table 25 — Minimum required marking on pipes**

<b>Aspects</b>	<b>Marking or symbol</b>	<b>Minimum durability of legibility of marking</b>
- Number of this standard	EN 1329	A
- Manufacturer's name and/or trade mark	XXX	A
- Nominal diameter	e.g. 110	A
- Minimum wall thickness	e.g. 3,2	A
- Material	PVC or PVC-U	A
- Application area code	e.g. BD	A
- For application area BD: nominal ring stiffness	e.g. SN 4	A
- Manufacturer's information	a	A
- Cold climate performance b	冰 (ice crystal)	B

a For providing traceability the following details shall be given:  
 1) the production period, year and month, in figures or in code;  
 2) a name or code for the production site if the manufacturer is producing in different sites, nationally and/or internationally.  
 b This marking is only applicable to pipes which by testing proved to conform to 7.1.2.