SLOVENSKI STANDARD
SIST EN 12666-1:2006/oprA1:2010

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Cevni sistemi iz polimernih materialov za odpadno vodo in kanalizacijo, ki delujejo po težnostnem principu in so položeni v zemljo - Polietilen (PE) – 1. del: Specifikacije za cevi, fitinge in sistem

Plastics piping systems for non-pressure underground drainage and sewerage - Polyethylene (PE) - Part 1: Specifications for pipes, fittings and the system

Kunststoff-Rohrleitungssysteme für erdverlegte drucklose Abwasserkanäle und -leitungen - Polyethylen (PE) - Teil 1: Anforderungen an Rohre, Formstücke und das Rohrleitungssystem

Systèmes de canalisations en plastique pour les branchements et les collecteurs d'assainissement sans pression enterrés - Polyéthylène (PE) - Partie 1: Spécifications pour les tubes, les raccords et le système

Ta slovenski standard je istoveten z: **EN 12666-1:2005/prA1**

ICS:

23.040.01	Deli cevovodov in cevovodi na splošno	Pipeline components and pipelines in general
91.140.80	Drenažni sistemi	Drainage systems
93.030	Zunanji sistemi za odpadno vodo	External sewage systems

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English Version

Plastics piping systems for non-pressure underground drainage and sewerage - Polyethylene (PE) - Part 1: Specifications for pipes, fittings and the system

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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 12666-1:2005. 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 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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Foreword

This document (EN 12666-1:2005/prA1:2010) 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.

The draft Amendment contains changes that have been agreed by CEN/TC 155 to harmonize the requirements in the drainage and sewerage standards.

The main changes in the revised document are:

— two new dimensions, 560 mm and 710 mm are introduced;

— a new ring stiffness class SN 16 is introduced;

— updating of the references in Clause 2;

— introduction of S-series in 3.3;

— introduction of S-series, a new footnote a) and a new NOTE in Table 3;

— introduction of a new watertightness test for fabricated fittings;

— deletion of Long Term Performance of TPE seals – Table 12 and 10.3;

— corrections of misprints in Tables 13 and 14 Marking of pipes and fittings;

— introduction of a new informative Annex B Product standards of components that can be connected to components conforming to this standard;

— updating and modification of the Bibliography.

Amendments to EN 12666-1:2005

1 Changes to foreword

In paragraph 7 delete list item 3 and replace list item 2 with the following:

"Part 2: Guidance for the assessment of conformity (CEN Technical Report)"

2 Change to Clause 1 Scope

Change the reference in the text below Note 1 to the following:

"CEN/TR 12666-2"

3 Changes to Clause 2 Normative references

Add the following references:

"CEN/TS 14541:2007, Plastics pipes and fittings for non-pressure applications — Utilisation of non-virgin PVC-U, PP and PE materials"

"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 1167-1:2006)"

Delete the following references:

"EN 921, EN 921:1994, Plastics piping systems — Thermoplastics pipes — Determination of resistance to internal pressure at constant temperature"

"EN 1989, Thermoplastics piping systems — Joints for buried non-pressure sewerage applications — Test method for long-term sealing performance of joints with thermoplastic elastomer (TPE) seals by estimating the sealing pressure"

4 Change to 3.3 Abbreviations

Add the following abbreviation:

"S :pipe series"

5 Change to 4.2 Reprocessable and recyclable material

Add the following text between the words permitted and provided in paragraph two:

"according to the rules in CEN/TS 14541"

6 Changes to 4.3 Melt mass-flow rate

Replace the following text:

> "when tested in accordance with EN ISO 1133:2005, condition T (temperature: 190 °C; loading mass: 5 kg)."

by the following:

> "The MFR of the base material shall be tested in accordance with EN ISO 1133, using the test parameters: temperature 190 ºC and loading mass 5 kg."

7 Changes to 6.2.1 Outside diameter

Add dimensions 560 and 710 to Table 2 as follows:

Table 2 — Mean outside diameters

Dimensions in millimetres

Nominal size DN/OD	Nominal outside diameter	Mean outside diameter	
	d_n	$d_{em,min}$	$d_{em,max}$
110	110	110,0	111,0
125	125	125,0	126,2
160	160	160,0	161,5
200	200	200,0	201,8
250	250	250,0	252,3
315	315	315,0	317,9
355	355	355,0	358,2
400	400	400,0	403,6
450	450	450,0	454,1
500	500	500,0	504,5
560	560	560,0	565,0
630	630	630,0	635,7
710	710	710,0	716,4
800	800	800,0	807,2
1 000	1 000	1 000,0	1 009,0
1 200	1 200	1 200,0	1 210,0
1 400	1 400	1 400,0	1 410,0
1 600	1 600	1 600,0	1 610,0

8 Changes to 6.2.3 wall thickness

Delete note below Table 3.

Add dimensions 560 and 710, S-series and SN 16 to Table 3 as follows:

Table 3 — Wall thicknesses

Dimensions in millimetres

Nominal size DN/OD	Nominal outside diameter	Wall thickness [a]							
		SN 2 [b] S 16 SDR 33		SN 4 S 12,5 SDR 26		SN 8 S 10 SDR 21		SN 16 S 8 SDR 17	
	d_n	e_{min} [c]	$e_{m,max}$	e_{min} [c]	$e_{m,max}$	e_{min} [c]	$e_{m,max}$	e_{min} [c]	$e_{m,max}$
110	110	– [d]	– [d]	4,2	4,9	5,3	6,1	6,6	7,5
125	125	– [d]	– [d]	4,8	5,5	6,0	6,9	7,4	8,4
160	160	– [d]	– [d]	6,2	7,1	7,7	8,7	9,5	10,7
200	200	– [d]	– [d]	7,7	8,7	9,6	10,8	11,9	13,3
250	250	7,7	8,7	9,6	10,8	11,9	13,3	14,8	16,5
315	315	9,7	10,9	12,1	13,6	15,0	16,8	18,7	21,7
355	355	10,9	12,2	13,6	15,2	16,9	19,7	21,1	24,5
400	400	12,3	13,8	15,3	17,1	19,1	22,2	23,7	27,5
450	450	13,8	15,4	17,2	20,0	21,5	24,8	26,7	30,9
500	500	15,3	17,1	19,1	22,2	23,9	27,4	29,7	34,4
560	560	17,2	20,0	21,4	24,9	26,7	30,9	33,2	38,4
630	630	19,3	22,5	24,1	28,0	30,0	34,7	37,4	43,3
710	710	21,8	25,3	27,2	31,5	33,9	39,2	42,1	48,7
800	800	24,5	28,4	30,6	35,4	38,1	44,1	47,4	54,8
1 000	1 000	30,6	35,4	38,2	44,2	47,7	55,1	-	-
1 200	1 200	36,7	42,4	45,9	53,0	57,2	66,0	-	-
1 400	1 400	42,9	49,6	53,5	61,8	–	–	-	-
1 600	1 600	49,0	56,6	61,2	70,6	–	–	-	-

[a] The tolerances for wall thicknesses conform to ISO 11922-1 grade W for wall thickness equal to or less than 16 mm and grade X for wall thickness larger than 16 mm.

[b] SN 2 is applicable for application area "U" only.

[c] The e_{min}-values are in conformance with ISO 4065:1996 [2].

[d] For sizes DN 110 to 200 in SN 2 reference is made to EN 1519-1:1999, Table 3, pipe series S16. Such pipes may be used outside the application area B when encased in concrete or laid in ducts.

NOTE SN 16 is only needed where the installation and soil conditions require high ring stiffness

Include a new footnote as follows and reorganize the letters accordingly:

> "The tolerances for wall thicknesses conform to EN 11922-1 grade W for wall thickness equal to or less than 16 mm and grade X for wall thickness larger than 16 mm."

Add a new NOTE under Table 3 reading: “SN 16 is only used where the installation and soil conditions require high ring stiffness”

Delete the following in the existing NOTE starting with “For components conforming to this Standard…”:

> …and are related as follows:
> SDR 33 corresponds to S 16;
> SDR 26 cooresponds to S 12,5;
> SDR 21 corresponds to S 10.”

9 Changes to 6.4.1.1 Diameters and length

Add dimensions 560 to Table 5 as follows:

Table 5 — Socket diameters and lengths of sockets and spigots

Dimensions in millimetres

Nominal size DN/OD	Nominal outside diameter	Socket			Spigot
	d_n	$d_{sm,min}$	A_{min} [a]	C_{max}	$L_{1,min}$
110	110	111,1	40	40	62
125	125	126,3	43	43	68
160	160	161,6	50	50	82
200	200	201,9	58	58	98
250	250	252,4	68	68	118
315	315	318,0	81	81	144
355	355	358,3	89	89	160
400	400	403,7	98	98	178
450	450	454,2	108	108	198
500	500	504,6	118	118	218
560	560	565,1	130	130	242
630	630	635,8	144	144	270

[a] The socket is designed for an effective length of pipe of 6 m.

10 Change to 6.4.1.2 Wall thicknesses of sockets

Add SN 16 to Table 6 as follows:

Table 6 — Wall thicknesses of sockets

Dimensions in millimetres

Nominal size DN/OD	Nominal outside diameter	Wall thickness							
		SN 2 [a] S 16 SDR 33		SN 4 S 12,5 SDR 26		SN 8 S 10 SDR 21		SN 16 S 8 SDR 17	
	d_n	$e_{2,min}$	$e_{3,min}$	$e_{2,min}$	$e_{3,min}$	$e_{2,min}$	$e_{3,min}$	$e_{2,min}$	$e_{3,min}$
110	110	-	-	3,8	3,2	4,8	4,0	6,0	5,0
125	125	-	-	4,4	3,6	5,4	4,5	6,7	5,6
160	160	-	-	5,6	4,7	7,0	5,8	8,6	7,2
200	200	-	-	7,0	5,8	8,7	7,2	10,8	9,0
250	250	7,0	5,8	8,7	7,2	10,8	9,0	13,4	11,1
315	315	8,8	7,3	10,9	9,1	13,5	11,3	16,9	14,1
355	355	9,9	8,2	12,3	10,2	15,3	12,7	17,8	18,4
≥ 400	≥ 400	11,1	9,3	13,8	11,5	17,2	14,4	21,4	17,8

[a] SN 2 is applicable for application area "U" only.