SLOVENSKI STANDARD
SIST EN ISO 15875-5:2004/oprA1:2020

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Cevni sistemi iz polimernih materialov za napeljave z vročo in hladno vodo - Zamreženi polietilen (PE-X) - 5. del: Ustreznost sistema namenu - Dopolnilo A1 (ISO 15875-5:2003/DAM 1:2020)

Plastics piping systems for hot and cold water installations - Crosslinked polyethylene (PE-X) - Part 5: Fitness for purpose of the system - Amendment 1 (ISO 15875-5:2003/DAM 1:2020)

Kunststoff-Rohrleitungssysteme für die Warm- und Kaltwasserinstallation - Vernetztes Polyethylen (PE-X) - Teil 5: Gebrauchstauglichkeit des Systems - Änderung 1 (ISO 15875-5:2003/DAM 1:2020)

Systèmes de canalisations en plastique pour les installations d'eau chaude et froide - Polyéthylène réticulé (PE-X) - Partie 5: Aptitude à l'emploi du système - Amendement 1 (ISO 15875-5:2003/DAM 1:2020)

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ISO 15875-5:2003/DAM 1

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Plastics piping systems for hot and cold water installations — Crosslinked polyethylene (PE-X) —

Part 5: Fitness for purpose of the system

AMENDMENT 1

Systèmes de canalisations en plastique pour les installations d'eau chaude et froide — Polyéthylène réticulé (PE-X) —

Partie 5: Aptitude à l'emploi du système

AMENDEMENT 1

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ISO copyright office
CP 401 • Ch. de Blandonnet 8
CH-1214 Vernier, Geneva
Phone: +41 22 749 01 11
Fax: +41 22 749 09 47
Email: copyright@iso.org
Website: www.iso.org

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This document was prepared by the European Committee for Standardization (CEN) Technical Committee CEN/TC 155, Plastics piping systems and ducting systems, in collaboration with ISO Technical Committee ISO/TC 138, Plastics pipes, fittings and valves for the transport of fluids, Subcommittee SC 2, Plastics pipes and fittings for water supplies, in accordance with the Agreement on technical cooperation between ISO and CEN (Vienna Agreement).

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Plastics piping systems for hot and cold water installations — Crosslinked polyethylene (PE-X) —

Part 5:
Fitness for purpose of the system

AMENDMENT 1

Page 1, Clause 2

Replace the normative reference:

EN 712, *Thermoplastics piping systems — End-load bearing mechanical joints between pressure pipes and fittings — Test method for resistance to pull-out under constant longitudinal force*

with

ISO 3501, *Plastics piping systems — Mechanical joints between fittings and pressure pipes — Test method for resistance to pull-out under constant longitudinal force*

Replace the normative reference:

EN 713, *Plastics piping systems — Mechanical joints between fittings and polyolefin pressure pipes — Test method for leak tightness under internal pressure of assemblies subjected to bending*

with

ISO 3503, *Plastics piping systems — Mechanical joints between fittings and pressure pipes — Test method for leaktightness under internal pressure of assemblies subjected to bending*

Page 2, Clause 2

Replace the normative reference:

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

with

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

Replace the normative reference:

EN 12293, *Plastics piping systems — Systems for hot and cold water — Test method for leak tightness under vacuum*

with

ISO 19893, *Plastics piping systems — Thermoplastics pipes and fittings for hot and cold water — Test method for the resistance of mounted assemblies to temperature cycling*

Replace the normative reference:

EN 12294, *Plastics piping systems — Systems for hot and cold water — Test method for leak tightness under vacuum*

with

ISO 13056, *Plastics piping systems — Pressure systems for hot and cold water — Test method for leaktightness under vacuum*

Replace the normative reference:

EN 12295, *Plastics piping systems — Thermoplastics pipes and associated fittings for hot and cold water —*

Test method for resistance of joints to pressure cycling

with

ISO 19892, *Plastics piping systems — Thermoplastics pipes and fittings for hot and cold water — Test*

method for the resistance of joints to pressure cycling

Page 2, Table 1

In row 2 (Internal pressure test), replace the test method "EN 921" with "ISO 1167-1/-2".

In row 3 (Bending test), replace the test method "EN 713" with "ISO 3503".

In row 4 (Pull-out test), replace the test method "EN 712" with "ISO 3501".

In row 5 (Thermal cycling test), replace the test method "EN 12293" with "ISO 19893".

In row 6 (Pressure cycling test), replace the test method "EN 12295" with "ISO 19892".

In row 7 (Vacuum test), replace the test method "EN 12294" with "ISO 13056".

Page 3, 4.2, first sentence

Replace "EN 921" with "ISO 1167-1/-2".

Page 3, 4.3, first sentence

Replace "EN 713" with "ISO 3503".

Page 3, 4.3, second paragraph

Replace "of nominal diameter greater than or equal to 32 mm" with "that are declared as being bendable by the system supplier."

Page 4, 4.4, first sentence

Replace "EN 712" with "ISO 3501".

Page 5, 4.5, first sentence

Replace "EN 12293" with "ISO 19893".

Page 5, Table 5

Replace Table 5 with the new Table 5 below.

Table 5 — Test parameters for thermal cycling test

	Application class			
	Class 1	Class 2	Class 4	Class 5
Maximum design temperature, T_{max}, in °C	80	80	70	90
Highest test temperature, in °C	90	90	80	95
Lowest test temperature, in °C	20	20	20	20
Test pressure, in bars	p_D	p_D	p_D	p_D
Number of cycles for $d_n \leq 160$ mm[a]	5 000	5 000	5 000	5 000
Number of cycles for $d_n > 160$ mm[b]	500	500	500	500
Number of test pieces	One set of fittings in accordance with the configuration shown in ISO 19893[c]			

[a] Each cycle shall comprise $15\,^{+1}_{0}$ min at the highest test temperature and $15\,^{+1}_{0}$ min at the lowest (i.e. the duration of one cycle is $30\,^{+2}_{0}$ min).

[b] Each cycle shall comprise 150^{+5}_{0} min at the highest test temperature and 150^{+5}_{0} min at the lowest (i.e. the duration of one cycle is 300^{+10}_{0} min).

[c] The test arrangement consists of min. 4 pipe connectors or min. 6 pipe connections for $d_n > 160$ mm. The free pipe length between the joints shall not be less than 150 mm. A representative set of fittings shall be used in the assembly.

Page 5, 4.5, first sentence

Replace "EN 12293" with "ISO 19893".

Page 5, 4.5, fifth sentence

Replace "EN 12293" with "ISO 19893".

Page 5, 4.6, first sentence

Replace "EN 12295" with "ISO 19892".

Page 6, Table 6

Replace Table 6 with the new Table 6 below.

Table 6 — Test parameters for pressure cycling

Characteristics	Requirement	Test parameters			Test method
Pressure cycling	No leakage	Test temperature	23 °C		ISO 19892
		Number of test pieces	3		
			$d_n \leq 160$ mm	$d_n > 160$ mm	
		Frequency (cycles/min)	(30 ± 5)	(15 ± 3)	
		Number of cycles	10 000	5 000	
		Test pressure limits for a design pressure of:	Upper limit	Lower limit	
		4 bar	6,0 bar	0,5 bar	
		6 bar	9,0 bar	0,5 bar	
		8 bar	12,0 bar	0,5 bar	
		10 bar	15,0 bar	0,5 bar	