## INTERNATIONAL STANDARD

ISO 15877-5

> Second edition 2009-03-15 **AMENDMENT 2** 2020-11

Plastics piping systems for hot and cold water installations — Chlorinated poly(vinyl chloride) (PVC-C) —

Part 5:

Fitness for purpose of the system

iTeh STAMENDMENTZEVIEW

Systèmes de canalisations en plastique pour les installations d'eau chaude et froide — Poly(chlorure de vinyle) chloré (PVC-C) —

Partie 5: Aptitude à l'emploi du système https://standards.iteh.ai/catalog/standards/sist/1ba4ac61-99/9-49ae-9635-

e817f7c**AMENDEMENT-2**009-amd-2-2020



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ISO 15877-5:2009/Amd 2:2020 https://standards.iteh.ai/catalog/standards/sist/1ba4ac61-9979-49ae-9635-e817f7c74f1c/iso-15877-5-2009-amd-2-2020



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This document was prepared by 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 collaboration with the European Committee for Standardization (CEN) Technical Committee CEN/TC 155, Plastics piping systems and ducting systems, in accordance with the Agreement on technical cooperation between ISO and CEN (Vienna Agreement).

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iii

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ISO 15877-5:2009/Amd 2:2020 https://standards.iteh.ai/catalog/standards/sist/1ba4ac61-9979-49ae-9635-e817f7c74f1c/iso-15877-5-2009-amd-2-2020

## Plastics piping systems for hot and cold water installations — Chlorinated poly(vinyl chloride) (PVC-C) —

## Part 5:

## Fitness for purpose of the system

## **AMENDMENT 2**

Normative references

Replace the reference to "EN 712" with the following:

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 reference to "EN 12293" with the following:

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 reference to "EN 12294" with the following:

ISO 15877-5:2009/Amd 2:2020
ISO 13056, Plastics piping systems can bressure systems for hot and cold water — Test method for leaktightness under vacuum. e817t7c74flc/iso-15877-5-2009-amd-2-2020

Replace the reference to "EN 12295" with the following:

ISO 19892, Plastics piping systems — Thermoplastics pipes and fittings for hot and cold water — Test method for the resistance of joints to pressure cycling

#### 4.1, Table 1

Replace the reference to "EN 712" with "ISO 3501".

Replace the reference to "EN 12293" with "ISO 19893".

Replace the reference to "EN 12295" with "ISO 19892".

Replace the reference to "EN 12294" with "ISO 13056".

### 4.3

In the first sentence, replace the reference to "EN 712" with "ISO 3501".

#### 4.4

In the first sentence, replace the reference to "EN 12293" with "ISO 19893".

In the third paragraph, replace the reference to "EN 12293" with "ISO 19893".

#### 4.4, Table 8

Replace Table 8 with the following table:

Table 8 — Test parameters for thermal cycling for PVC-C

	Application class					
	Class 1	Class 2	Class 4	Class 5		
Maximum design temperature, $T_{\rm max}$ , 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	$p_{ m D}$	$p_{\mathrm{D}}$	$p_{ m D}$	$p_{ m D}$		
Number of cycles for $d_n \le 160 \text{ mm}^a$	5 000	5 000	5 000	5 000		
Number of cycles for $d_n > 160 \text{ mm}$	11 500 A K	D 500KE	V <u>1500</u> VV	500		
Number of test pieces (St	ober of test pieces  (St. One set of fittings in accordance with the configuration shown in ISO 19893 <sup>c</sup>					

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  $^{+2}$  dardy, itch ai/catalog/standards/sist/1ba4ac61-9979-49ac-9635-e817f7c74f1c/iso-15877-5-2009-amd-2-2020 b Each cycle shall comprise 150 $^{+5}_0$  min at the highest test temperature and 150 $^{+5}_0$  min at the lowest

<sup>(</sup>i.e. the duration of one cycle is  $300^{+10}_{0}$  min).

The test arrangement consists of min. 4 pipe connectors or min. 6 pipe connections for  $d_{\rm n}$  > 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.

## 4.5, Table 9

Replace Table 9 with the following table:

Table 9 — Test parameters for pressure cycling

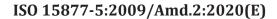
Characteristics	Requirement	Test pa	Test method				
Pressure cycling	No leakage	Test temperature	23 °C 3		ISO 19892		
		Number of test pieces					
			$d_{\rm n} \le 160$	$d_{\rm n} > 160$			
			mm	mm			
		Frequency (cycles/min)	(30 ± 5)	(15 ± 3)			
		Number of cycles	10 000	5 000			
		Test pressure limits 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			
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4.6, Table 10

Replace the reference to "EN 12294 with " $180^{-130}$  with " $180^{-130}$  km 2:2020 https://standards.iteh.ai/catalog/standards/sist/1ba4ac61-9979-49ae-9635-e817f7c74f1c/iso-15877-5-2009-amd-2-2020

3



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