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AMENDMENT 1
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Plastics piping systems for hot and cold water installations — Polybutene (PB) —

Part 5: Fitness for purpose of the system

AMENDMENT 1

Systèmes de canalisations en plastique pour les installations d'eau chaude et froide — Polybutène (PB) —

Partie 5: Aptitude à l'emploi du système

AMENDEMENT 1

Reference number
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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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Part 5: Fitness for purpose of the system

AMENDMENT 1

Scope, third paragraph

Replace the reference to "ISO 15876-1:2003" with "ISO 15876-1:2017".

4.5, Table 7

Replace Table 7 with the following table:

Table 7 — Test parameters for thermal cycling

	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.

4.6, Table 8

Replace Table 8 with the following table:

Table 8 — 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	

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