
**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





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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			