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

**Part 5:  
Fitness for purpose of the system**

**AMENDMENT 1**

*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*

*AMENDEMENT 1*



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## Foreword

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The main task of technical committees is to prepare International Standards. Draft International Standards adopted by the technical committees are circulated to the member bodies for voting. Publication as an International Standard requires approval by at least 75 % of the member bodies casting a vote.

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Amendment 1 to ISO 15877-5:2009 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 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 — Chlorinated poly(vinyl chloride) (PVC-C) —

## Part 5: Fitness for purpose of the system

### AMENDMENT 1

PVC-C Type I piping systems for low-temperature heating applications have been used successfully in some countries for more than 30 years. Therefore, this amendment proposes to add to ISO 15877-5, Class 4 as defined in ISO 10508, for the conditions of service used in these countries (4 bar and 6 bar).

Page 4, 4.2.2, Table 3

Delete the existing Table 3, and insert:

**Table 3 — Derivation of hydrostatic test pressure of solvent cement joints for PVC-C Type I**

	Class 1	Class 2	Class 4
<b>Maximum design temperature</b> $T_{max}$ °C	80	80	70
<b>Design stress in the fitting material</b> $\sigma_{DF}$ MPa	3,17	3,08	2,51
<b>Test temperature</b> $T_{Test}$ °C	80	80	80
<b>Test duration</b> $t$ h	≥ 3 000	≥ 3 000	≥ 3 000
<b>Hydrostatic stress of the fitting material</b> $\sigma_F$ MPa	6,14	6,14	6,14
<b>Test pressure</b> $p_J$ in bars for a design pressure, $p_D$ , of			
4 bar	7,7	8,0	9,8
6 bar	11,6	12,0	14,7
8 bar	15,5	15,9	Not applicable
10 bar	19,4	19,9	Not applicable
<b>Number of test pieces</b>	3	3	3

Delete the existing Table 5, and insert:

**Table 5 — Derivation of hydrostatic test pressure of mechanical joints for PVC-C Type I**

	Class 1	Class 2	Class 4
<b>Maximum design temperature</b> $T_{\max}$ °C	80	80	70
<b>Design stress in the pipe material</b> $\sigma_{DF}$ MPa	4,38	4,16	4,46
<b>Test temperature</b> $T_{\text{Test}}$ °C	80	80	80
<b>Test duration</b> $t$ h	≥ 3 000	≥ 3 000	≥ 3 000
<b>Hydrostatic stress of the pipe material</b> $\sigma_F$ MPa	8,25	8,25	8,25
<b>Test pressure</b> $p_J$ in bars for a design pressure, $p_D$ , of			
4 bar	7,5	7,9	7,4
6 bar	11,3	11,9	11,1
8 bar	15,1	15,9	Not applicable
10 bar	18,8	19,8	Not applicable
<b>Number of test pieces</b>	3	3	3