



BSI Standards Publication

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

Part 5: Fitness for purpose of the system

National foreword

This British Standard is the UK implementation of EN ISO 15875-5:2003+A1:2020. It is identical to ISO 15875-5:2003, incorporating amendment 1:2020. It supersedes BS EN ISO 15875-5:2003, which is withdrawn.

The start and finish of text introduced or altered by amendment is indicated in the text by tags. Tags indicating changes to ISO text carry the number of the ISO amendment. For example, text altered by ISO amendment 1 is indicated by **A1** **A1**.

The UK participation in its preparation was entrusted to Technical Committee PRI/88, Plastics piping systems.

A list of organizations represented on this committee can be obtained on request to its committee manager.

As the scope of this standard does not cover crosslinked polyethylene (PE-X) piping systems for installations having service conditions in excess of those in Table 1 of BS EN ISO 15875-1:2003+A1:2007, the UK committee advises users to consult BS 7291-1:2010+A1:2023 when applying this standard.

BS 7291-1:2010+A1:2023 gives the Class “S” service conditions for sealed central heating systems and indirect hot water primary circuits in which the maximum system service temperature is 105 °C and the system malfunction temperature is 114 °C. As both of these temperatures are significantly in excess of those specified in Table 1 of BS EN ISO 15875-1:2003+A1:2007, and sealed central heating systems and indirect hot water primary circuits are therefore not covered by it, the UK committee advises that PE-X piping systems conforming to the requirements of this standard should also be subjected to the temperatures given in Table 1 of BS 7291-1:2010+A1:2023.

The UK committee also advises users that:

- a) The normal maximum operating cold water supply pressure in the UK is 12.5 bar (1 bar = 100 kPa), which some categories of piping systems in the BS EN ISO 15875 series of standards do not meet.
- b) There is a disparity between the malfunction temperature quoted in Table 1 of BS EN ISO 15875-1:2003+A1:2007 (100 °C) and the malfunction temperatures applicable to boilers conforming to the requirements of BS EN 15502-1:2021+A1:2023, BS EN 15502-2-1:2022+A1:2023 and BS EN 15502-2-2:2014 (110 °C). Consequently, piping systems used with these gas-fired central heating boilers could be subjected to temperatures in service for which they have not been tested.
- c) Piping systems conforming to the requirements of the BS EN ISO 15875 series of standards are designed for hot and cold water installations and are not suitable for waste discharge from unvented hot water systems (i.e. downstream pipe D2).
- d) Continuously operated recirculating domestic hot water systems (known as recirculating, secondary hot circulation, return or ring main systems) carry pumped hot potable water to outlets where the temperature is between 60 °C and 70 °C, and is replenished by an incoming water supply to replace the water drawn to outlets piping

systems conforming to the requirements of the BS EN ISO 15875 series of standards are not suitable for this use.

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Published by BSI Standards Limited 2024

ISBN 978 0 539 29780 5

ICS 23.040.01; 23.040.20; 91.140.60

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This British Standard was published under the authority of the Standards Policy and Strategy Committee on 14 June 2004.

Amendments/corrigenda issued since publication

Date	Text affected
28 February 2021	Implementation of ISO amendment 1:2020 with CEN endorsement A1:2020
31 July 2024	Correction to national foreword. ISO foreword removed.

English version

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

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 (ISO
15875-5:2003)

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

This European Standard was approved by CEN on 17 March 2003.

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