



BSI Standards Publication

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

Part 1: General

National foreword

This British Standard is the UK implementation of EN ISO 15875-1:2003+A1:2007. It is identical to ISO 15875-1:2003, incorporating amendment 1:2007. It supersedes BS EN ISO 15875-1:2003, which is withdrawn.

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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Amendments/corrigenda issued since publication

Date	Text affected
31 July 2007	The definition for 3.1.4 has been replaced. References [5]–[8] have been added to the Bibliography.
31 July 2024	Corrections to national foreword and standard designator

English version

Plastics piping systems for hot and cold water installations -
Crosslinked polyethylene (PE-X) - Part 1: General (ISO 15875-
1:2003)

Systèmes de canalisations en plastique pour les
installations d'eau chaude et froide - Polyéthylène réticulé
(PE-X) - Partie 1: Généralités (ISO 15875-1:2003)

Kunststoff-Rohrleitungssysteme für die Warm- und
Kaltwasserinstallation - Vernetztes Polyethylen (PE-X) -
Teil 1: Allgemeines (ISO 15875-1:2003)

This European Standard was approved by CEN on 14 March 2003.

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Contents

Contents..... 2

Introduction 4

1 Scope..... 5

2 Normative references..... 5

3 Terms and definitions, symbols and abbreviated terms..... 5

3.1 Terms and definitions..... 5

3.1.1 Geometrical terms and definitions..... 5

3.1.2 Terms and definitions related to service conditions 7

3.1.3 Terms and definitions related to material characteristics..... 8

3.2 Symbols..... 8

3.3 Abbreviated terms 9

4 Classification of service conditions..... 9

5 Material..... 10

5.1 General..... 10

5.2 Influence on water intended for human consumption 10

5.3 Reprocessable material 11

Bibliography 12