



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 15875-5:2025. It is identical to ISO 15875-5:2025. It supersedes BS EN ISO 15875-5:2003+A1:2020, which is withdrawn.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 BS EN ISO 15875-1:2025, Table 1, the UK committee advises users to consult BS 7291-1:2010+A1:2023 when applying this standard.

BS 7291-1:2010+A1:2023 gives 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 BS EN ISO 15875-1:2025, Table 1, and sealed central heating systems and indirect hot water primary circuits are therefore not covered by it, the UK committee advise 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 the following to users.

- a) That 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 BS EN ISO 15875-1:2025, Table 1 (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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