

Plastics pipework (thermoplastic materials)

**Part 8: Specification for the installation
of thermoplastic pipes and associated
fittings for use in domestic hot and cold
services and heating systems in
buildings**

ICS 83.140.30; 91.140.10; 91.140.60

Committees responsible for this British Standard

The preparation of this British Standard was entrusted by Technical Committee, PRI/88, Plastic piping systems, to Subcommittee PRI/88/2, Thermoplastic piping systems and components for pressure applications, upon which the following bodies were represented:

- British Adhesives and Sealants Association
- British Plastics Federation
- British Plumbing Fittings Manufacturers' Association
- Chartered Institute of Water and Environment
- Health and Safety Executive
- Institute of Materials
- Institution of Civil Engineers
- Institution of Gas Engineers
- National Association of Plumbing and Heating
- Standards Association of Australia
- Water UK

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Foreword

This British Standard has been prepared under the direction of the Plastics Standards Committee. Its preparation was entrusted by Technical Committee PRI/88, Plastics piping systems and components, to Subcommittee PRI/88/2, Plastics piping systems and components for pressure applications. It supersedes the 1990 edition, which is now withdrawn.

It specifies methods and gives requirements for the installation of polybutylene (PB) and crosslinked polyethylene (PE-X) pipes and associated fittings compatible with the scope of BS 7291:2001. It is intended for the use of engineers, architects, surveyors, contractors, installers and inspection authorities for purposes of use of hot and cold water, including heating systems in buildings. To further assist end-users, requirements have also been given for jointing systems which may be used with these components, together with recommended methods of storage, handling and transport.

NOTE In the preparation of this standard, the opportunity has been taken to present it in the form of a practice specification in accordance with the guidance given in PD 6612:1997. This format allows the requirements of the specification to be supported by recommendations. To comply with this specification, the user has to comply with all its requirements. The user may depart from recommendations, but this would be on his own responsibility and he would be expected to have good reasons for doing so.

Attention is drawn to BS 1710 for a specification on identification and marking of service pipework to discriminate between different applications and/or pipework for other purposes. This is not intended to imply that the requirements given in BS 1710 for the marking of pipework are either necessary or desirable for installations in situations used only for domestic purposes.

Annex A and Annex B are informative.

A British Standard does not purport to include all the necessary provisions of a contract. Users of British Standards are responsible for their correct application.

Compliance with a British Standard does not of itself confer immunity from legal obligations.

Installations covered by this part of BS 5955 fall within the scope of the Water Supply (Water Fittings) Regulations [1] and/or relevant byelaws, and persons using this standard should therefore be conversant with the applicable Water Regulations.

Guidance on water regulations matters can be obtained from local water undertakers or from the Water Regulations Advisory Scheme.

Summary of pages

This document comprises a front cover, an inside front cover, pages i and ii, pages 1 to 9 and a back cover.

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1 Scope

This part of this British Standard specifies the practices to be followed in the application and installation of thermoplastics pipes and associated fittings which fall within the scope of BS 7291:2001 and are used for the distribution of hot and cold water, including drinking water, and heating systems within buildings.

Guidance is also given on acceptable methods of jointing polybutylene (PB) and crosslinked polyethylene (PE-X) pipes and associated fittings, together with recommendations on their storage, handling and transportation.

Whilst it is recognized that in the majority of installations there will be combination of plastics and metallic components, guidance is only given for those parts of the installation where thermoplastics pipes and/or associated fittings are utilized, except where a transition occurs between plastics and metallic components.

2 Normative references

The following normative documents contain provisions which, through reference in this text, constitute provisions of this part of this British Standard. For dated references, subsequent amendments to, or revisions of, any of these publications do not apply. For undated references, the latest edition of the publication referred to applies.

BS 5449, *Specification for forced circulation hot water central heating systems for domestic premises.*

BS 5970, *Code of practice for thermal insulation of pipework and equipment (in the temperature range -100°C to $+870^{\circ}\text{C}$).*

BS 6920-1:2000, *Suitability of non-metallic products for use in contact with water intended for human consumption with regard to their effect on the quality of the water — Part 1: Specification.*

BS 7291-1:2001, *Thermoplastics pipes and associated fittings for hot and cold water for domestic purposes and heating installations in buildings — Part 1: General requirements.*

BS 7291-2, *Thermoplastics pipes and associated fittings for hot and cold water for domestic purposes and heating installations in buildings — Part 2: Specification for polybutylene (PB) pipes and associated fittings.*

BS 7291-3, *Thermoplastics pipes and associated fittings for hot and cold water for domestic purposes and heating installations in buildings — Part 3: Specification for crosslinked polyethylene (PE-X) pipes and associated fittings.*

BS 7671, *Requirements for electrical installations — IEE Wiring Regulations.*

BS EN 681-1, *Elastomeric seals — Material requirements for pipe joint seals used in water and drainage application — Part 1: Vulcanized rubber.*

BS EN 1254-2, *Copper and copper alloys — Plumbing fittings — Part 2: Fittings with compression ends for use with copper tubes.*

BS EN 1254-3, *Copper and copper alloys — Plumbing fittings — Part 3: Fittings with compression ends for use with plastics pipes.*

3 Terms and definitions

For the purposes of this part of BS 5955, the terms and definitions given in BS 7291-1:2001 and the following apply.

3.1

boiler

appliance designed for heating water either for heating systems or hot water supply

3.2

circulator

appliance designed for the supply of hot water in conjunction with a separate storage vessel, operated by gravity circulation

3.3

component

part of an installation which can be either plastics or metallic