

Unplasticized PVC soil and ventilating pipes of 82.4 mm minimum mean outside diameter, and fittings and accessories of 82.4 mm and of other sizes — Specification

ICS 83.140.30; 91.140.80

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/88/1, Thermoplastic piping systems and components for non-pressure applications, upon which the following bodies were represented:

- British Adhesive and Sealants Association
- British Plastics Federation
- BSI Testing Services
- Chartered Institution of Water and Environment Management
- DETR British Board of Agreement
- DETR Central Transport Group
- Department of Environment for Northern Ireland
- Department of Environment, Transport and Waste
- Institute of Building Control
- Institute of Plumbing
- Land Drainage Contractors Association
- National Association of Plumbing, Heating and Mechanical Services Contractors
- Plastic Land Drainage Manufacturers Association
- Scottish Executive
- Water Research Centre Plc

This British Standard, having been prepared under the direction of the Sector Committee for Materials and Chemicals, was published under the authority of the Standards Committee and comes into effect on 15 July 2001

Amendments issued since publication

Amd No.	Date	Comment

The following BSI references relate to the work on this British Standard:
Committee reference PRI/88
Draft for comment 00/122010 DC

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Foreword

This revision of this British Standard was entrusted by Technical Committee PRI/88, Plastic piping systems, to Subcommittee PRI/88/1, Thermoplastic piping systems and components for non-pressure applications. It supersedes the 1983 edition, which is now withdrawn. The major changes between this revision and the previous edition as amended are as follows.

- a) The conventional products of the 36, 43, 56, 110 and 160 sizes have been withdrawn as these products are now covered by BS EN 1329-1:2000.
- b) Where possible, reference has been made to the methods of test as described in BS EN 1329-1:2000. Attention is drawn to the provisions of the Health and Safety at Work etc. Act 1974 [1], and the need to ensure that appropriate precautions are taken to ensure the safety of personnel when carrying out the methods of test required by this standard.

Annex A and Annex B are normative.

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

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Summary of pages

This document comprises a front cover, an inside front cover, pages i to ii, pages 1 to 13 and a back cover.

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1 Scope

This British Standard specifies the material, appearance, dimensions and physical requirements for unplasticized poly(vinyl chloride) soil and ventilating pipes of 82.4 mm minimum mean outside diameter, fittings of size 82.4 mm and other sizes of accessories, including coated metal fittings. It also specifies jointing materials for use in above-ground drainage systems of application area B (see BS EN 1329-1:2000) intended to convey domestic effluents and surface rainwater.

2 Normative references

The following normative documents contain provisions which, through reference in this text, constitute provisions 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 21, *Specification for pipe threads for tubes and fittings where pressure-tight joints are made on the threads (metric dimensions)*.

BS 1006:A02:1990, *Methods of test for colour fastness of textiles and leather — Grey scale for assessing change in colour (including half-steps)*.

BS 1006:B01C:LFS5:1998, *Methods of test for colour fastness of textiles and leather — Blue wool standards — Reference standard for no. 5*.

BS 2779, *Specification for pipe threads for tubes and fittings where pressure-tight joints are not made on the threads (metric dimensions)*.

BS 2782-11:Method 1101A:1981, *Methods of testing plastics — Thermoplastics pipes, fittings and valves — Measurement of dimensions of pipes*.

BS 2782-11:Method 1103V:1995, *Plastics piping and ducting systems — Thermoplastics pipes and fittings — Determination of Vicat softening temperature (VST)*.

BS 2782-11:Method 1107A:1996, *Plastics piping and ducting systems — Plastics pipes and fittings — Method for exposure to direct (natural) weathering*.

BS 4346-3, *Joints and fittings for use with unplasticized PVC pressure pipes — Part 3: Specification for solvent cement*.

BS 5504-1, *Wall hung WC pan — Wall hung WC pan with close coupled cistern — Part 1: Connecting dimensions*.

BS 5504-2, *Wall hung WC pan — Wall hung WC pan with independent water supply — Part 2: Connecting dimensions*.

BS 5504-3, *Wall hung WC pan — Wall hung WC pan — Part 3: Materials, quality and functional dimensions other than connecting dimensions*.

BS 5627, *Specification for plastics connectors for use with horizontal outlet vitreous china WC pans*.

BS 6209, *Specification for solvent cement for non-pressure thermoplastics pipe systems*.

BS EN 33, *Pedestal WC pans with close-coupled flushing cistern — Connecting dimensions*.

BS EN 37, *Pedestal WC pans with independent water supply — Connecting dimensions*.

BS EN 681-1:1996, *Elastomeric seals — Material requirements for pipe joint seals used in water and drainage applications — Part 1: Vulcanized rubber*.

BS EN 681-2, *Elastomeric seals — Material requirements for pipe joint seals used in water and drainage applications — Part 2: Thermoplastic elastomers*.

BS EN 1329-1:2000, *Plastics piping systems for soil and waste discharge (low and high temperature) within the building structure — Unplasticized poly(vinyl chloride) (PVC-U) — Part 1: Specifications for pipes, fittings and the system*.

BS EN 1462:1997, *Brackets for eaves gutters — Requirements and testing*.

3 Materials

3.1 Pipes and fittings

The material from which the pipes and fittings are produced shall consist substantially of unplasticized PVC, together with the materials necessary to enable manufacture and to ensure conformity to this standard, except for snap caps which may be produced from thermoplastics other than unplasticized PVC. The requirements for the utilization of non-virgin materials shall be as specified in Annex A of BS EN 1329-1:2000.

3.2 Weather resistance

When tested using the method described in Annex A, there shall be no visible change in colour between the exposed and shaded parts of the specimens.

3.3 Coated metal fittings

Metal fittings, such as pipe brackets, shall meet the material and corrosion requirements of BS EN 1462:1997, clauses 4 and 5.

3.4 Elastomeric sealing rings

If elastomeric sealing rings are used in joints they shall conform to BS EN 681-1:1996 Type WC or to BS EN 681-2.

3.5 Solvent cements

If solvent cements are used in joints, they shall conform to BS 6209 or BS 4346-3.

NOTE Cements conforming to BS 6209 are preferred.

4 Appearance

4.1 Internal and external surfaces

The internal and external surfaces of pipes and fittings shall be smooth, clean and free from grooving and blistering, except for surfaces deliberately roughened for jointing to other materials.

4.2 Colour

The pipes and fittings shall be coloured throughout the wall.

NOTE The recommended colour of pipes and fittings is grey.

5 Dimensions

5.1 General

Measurement of dimensions of pipes and fittings shall be carried out in accordance with the methods described in BS 2782-11:Method 1101A:1981 at $(23 \pm 2) ^\circ\text{C}$.

5.2 Pipes

Pipe diameters and wall thicknesses shall conform to the dimensions given in Table 1. The length of a pipe shall be as shown in Figure 1.

NOTE The preferred lengths of pipe are 2.0 m, 3.0 m and 4.0 m.

Table 1 — Dimensions of pipes

Nominal size	Mean outside diameter		Extreme outside diameter ^a		Min. wall thickness mm
	min. mm	max. mm	min. mm	max. mm	
82	82.4	82.8	81.0	84.3	3.0

^a The extreme outside are the minimum and maximum measured directions