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Shower units —

Part 4: Specification for shower heads and related equipment

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- Association of Manufacturers of Domestic Electrical Appliances
- Association of Manufacturers of Domestic Unvented Supply Systems Equipment
- British Bath Manufacturers' Association
- British Ceramic Tile Council
- British Gas Corporation
- British Plastics Federation
- Chartered Institution of Building Services
- Consumer Standards Advisory Committee of BSI
- Consumers' Association
- Council of British Ceramic Sanitaryware Manufacturers
- Department of Health and Social Security
- Department of the Environment (Building Research Establishment)
- Department of the Environment (Property Services Agency)
- Disabled Living Foundation
- Flat Glass Manufacturers' Association
- Institute of Plumbing
- Institution of Gas Engineers
- National Brassfoundry Association
- National Federation of Building Trades Employers
- National House-Building Council
- Plastic Bath Manufacturers Association
- Royal Institute of British Architects
- STC Water Regulations and Fittings Scheme

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Foreword

This Part of BS 6340 has been prepared under the direction of the Building Services Standards Committee and was initiated by the Consumer Standards Advisory Committee of BSI, a need for such a standard having been indicated by various interested organizations.

The standard is being published in the following Parts:

- *Part 1: Guide on choice of shower units and their components for use in private dwellings;*
- *Part 2: Specification for the installation of shower units;*
- *Part 3: Specification for prefabricated shower enclosures¹⁾;*
- *Part 4: Specification for shower heads and related equipment;*
- *Part 5: Specification for prefabricated shower trays made from acrylic material;*
- *Part 6: Specification for prefabricated shower trays made from porcelain enamelled cast iron;*
- *Part 7: Specification for prefabricated shower trays made from vitreous enamelled sheet steel;*
- *Part 8: Specification for prefabricated shower trays made from glazed ceramic¹⁾.*

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Summary of pages

This document comprises a front cover, an inside front cover, pages i and ii, pages 1 to 12, an inside back cover and a back cover.

This standard has been updated (see copyright date) and may have had amendments incorporated. This will be indicated in the amendment table on the inside front cover.

¹⁾ In course of preparation.

Section 1. General

1 Scope

This Part of BS 6340 specifies the requirements for the materials, dimensions and functional testing of domestic shower heads and related equipment to be used in conjunction with shower controls complying with the requirements of BS 1415-1, BS 1010-2, BS 5412 and BS 5413.

Details of the information to be supplied by the purchaser are given in Appendix A.

NOTE The titles of the publications referred to in this Part of BS 6340 are listed on the inside of the back cover.

2 Definitions

For the purposes of this Part of BS 6340, the following definitions apply.

2.1

fixed shower head

a fixed height outlet fitting through which water passes and is emitted as either a number of separate jets or as water droplets

2.2

swivel shower head

a fixed height outlet fitting through which water is emitted as either a number of separate jets or water droplets. This shower head incorporates a universal joint enabling it to be swivelled through a limited angular arc, thereby permitting the water spray trajectory to be adjusted

2.3

shower handset

a mobile shower head with an integral handle which, when used in conjunction with a flexible hose, permits the user to direct the water trajectory as required

2.4

spray plate

a plate containing holes or slots through which water passes and thereby forms a spray of water with separate, definable jets or water droplets

2.5

flexible hose

a flexible tube, which connects the outlet of the mixing valve to the shower handset

2.6

handset holder

a device for holding a shower handset in a fixed height position such that the hands of the user are free and that the water spray emitted can be used for ablutionary purposes. Some handset holders incorporate a degree of angular movement which enables the water spray trajectory to be adjusted

2.7

slide bar

a fixture mounted in the shower enclosure consisting of a vertically mounted tube or bar and a clampable handset holder which allows the height of a shower handset to be varied to the user's particular needs

2.8

shower arm

a pipe or casting which connects the concealed and/or exposed rigid riser to the shower head

2.9

rigid riser

a pipe connecting the outlet of the mixing valve to the shower arm or head

2.10

spray pattern formation

the spray pattern of a shower head or handset is deemed to be formed when the water issuing from the spray plate holes does so in single, definable jets or water droplets, after the water has been flowing for a period of one minute

2.11

atomizer

a pressure dependent device which disperses water into very fine droplets or mist

2.12

shower equipment

a generic term covering all the above component parts

3 Materials

The materials used for the metallic parts of the shower equipment shall comply with clause 9 of BS 5412-5:1976.

All non-metallic material used for the shower equipment shall comply with the tests described in all sections of this British Standard.

When tested in accordance with DD 82 the materials of construction shall not, under the expected usual conditions of use for which the shower head is designed, impart to the water with which they will come into contact unpleasant taste or odour, any cloudiness or discoloration, or any toxic or undesirable substances.

4 Marking

Shower equipment, or its packaging, shall be legibly marked with the following information:

- the manufacturer's name or identification mark;
- the number of this British Standard, i.e. BS 6340-4²⁾;
- where applicable, the nominal size of the fitting.

NOTE Additional markings are not precluded.

5 Instructions

Installation, use and maintenance instructions shall be provided with each shower head.

Section 2. Dimensions, design and construction

6 General

The design and construction of shower equipment shall be such that it is suitable for use when installed with the shower enclosures specified in BS 6340-3 and shower trays specified in BS 6340-5 to BS 6340-8.

The spray plate, where fitted, shall be removable in accordance with the manufacturer's instructions by the use of simple tools (e.g. screwdriver) for cleaning purposes at least 50 times and still be replaceable without renewal of parts.

7 Shower types

The shower head shall be one of the following types:

- fixed shower head;
- swivel shower head;
- shower handset fed via a flexible hose and of one of the following variations:
 - fixed height handset for use with a wall handset holder;
 - variable height handset for use with a slide bar;

- hand held handset for use with a simple holder attached to a bath/shower mixer.

8 Connections

Threads used on shower equipment for connection purposes shall comply with BS 2779. Compression fittings used on shower equipment for connection purposes shall be suitable for use with metallic tube, the outside dimensions of which comply with BS 2871-1.

9 Plating

9.1 Nickel and chromium plating on shower equipment made from copper alloys, shall comply with the requirements of BS 1224:1970, service condition No. 2, classification Cu/Ni 10b Cr r.

9.2 Nickel and chromium plating on shower equipment made from plastics materials shall comply with the requirements of BS 4601:1970, service condition No. 2A, classification PL/Ni 8b Cr r.

10 Flexible hoses

NOTE The preferred lengths of hose are 1.2 m and 1.5 m, but this does not preclude other lengths from being used.

Thread connections at the ends of the flexible hose shall be G½ or G¾ to BS 2779 and shall be in the following combinations:

$$\frac{1}{2} \times \frac{1}{2}; \frac{1}{2} \times \frac{3}{4}$$

Section 3. Performance characteristics

11 Flow rates

When tested in accordance with Appendix B, using the test circuit shown in Figure 1, the flow rates through a shower head/handset and its associated water feed pipe, (i.e. rigid riser or flexible hose) shall be as given in Table 1.

12 Spray form

When tested in accordance with Appendix C, the distribution of the water droplets shall be such that the amount of water collected by each section of the annular gauge expressed as a percentage of the total volume collected shall be as follows:

- centre cylinder: 0 % to 35 %;
- inner annulus: 10 % to 70 %;
- outer annulus: 25 % to 85 %.

²⁾ Marking BS 6340-4 on or in relation to a product is a claim by the manufacturer that the product has been manufactured to the requirements of the standard. The accuracy of such a claim is therefore solely the manufacturer's responsibility. Enquiries as to the availability of third party certification to support such claims should be addressed to the Director, Quality Assurance Division, BSI, Maylands Avenue, Hemel Hempstead, Herts HP2 4SQ in the case of certification marks administered by BSI or to the appropriate authority for other certification marks.