

SPECIFICATION FOR
SHEET STEEL BATHS
~~FOR DOMESTIC PURPOSES~~



BS 1390 : 1972

Including Amendments:

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The Institution desires to call attention to the fact that this British Standard does not purport to include all the necessary provisions of a contract.

In order to keep abreast of progress in the industries concerned, British Standards are subject to periodical review. Suggestions for improvements will be recorded and in due course brought to the notice of the committees charged with the revision of the standards to which they refer.

A complete list of British Standards, numbering over 5000, fully indexed and with a note of the contents of each, will be found in the British Standards Yearbook, which may be purchased from BSI Sales Department. It may also be consulted in many public libraries and similar institutions.

This standard makes reference to the following British Standards:

 BS 410. Specification for test sieves.

BS 1010. Draw-off taps and stopvalves for water services (screwdown pattern).

BS 1189. Cast iron baths.

 BS 1344. Methods of testing vitreous enamel finishes.

Part 2. Resistance to citric acid at room temperature.

Part 4. Resistance to abrasion.

Part 6. Resistance to alkali.

Part 12. Production of specimens for testing coatings on sheet steel.

BS 2900. Recommendations for the co-ordination of dimensions in building. Glossary of terms.

BS 3380. Wastes (excluding skeleton sink wastes) and bath overflows.

- BS 4011. Recommendations for the co-ordination of dimensions in building. Basic sizes for building components and assemblies.
- BS 4305. Baths for domestic purposes made from cast acrylic sheet.
- PD 6444. Recommendations for the co-ordination of dimensions in building. Co-ordinating sizes for fixtures, furniture and equipment.
Part 2. (Functional group 5).

British Standards are revised, when necessary, by the issue either of amendment slips or of revised editions. It is important that users of British Standards should ascertain that they are in possession of the latest amendments or editions.

The following BSI references relate to the work on this standard:
Committee reference SAB/6 Draft for comment 70/18555

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CO-OPERATING ORGANIZATIONS

The Sanitary Appliances Industry Standards Committee, under whose supervision this British Standard was prepared, consists of representatives from the following Government departments and scientific and industrial organizations:

- *Association of Public Health Inspectors
- British Bath Manufacturers' Association
- British Ironfounders' Association
- British Plastics Federation
- *British Waterworks Association
- Council of British Ceramic Sanitaryware Manufacturers
- *Department of the Environment (Housing and Construction Wing)
- Department of the Environment (Local Government and Development Wing)
- Flushing Cistern Makers' Association
- *Greater London Council
- *Institute of Plumbing
- *Institution of Municipal Engineers
- Institution of Public Health Engineers
- Metal Sink Manufacturers' Association
- Department of the Environment – Building Research Station
- Ministry of Defence (Air Force)
- National Brassfoundry Association
- National Federation of Building Trades Employers
- Royal Institute of British Architects
- Royal Institute of Public Health and Hygiene
- Royal Institution of Chartered Surveyors
- *Royal Society of Health
- Scottish Federation of Plumbers' and Domestic Engineers' (Employers') Associations
- *Water Companies Association

The Government department and scientific and industrial organizations marked with an asterisk in the above list, together with the following, were directly represented on the committee entrusted with the preparation of this British Standard:

- Allied Ironfounders
- British Steel Industry
- Institute of Vitreous Enamellers
- Institution of Housing Managers
- Institution of Water Engineers
- National Federation of Builders' and Plumbers Merchants
- National Federation of Plumbers and Domestic Heating Engineers
- Registered Plumbers' Association
- Vitreous Enamel Development Council
- Women's Advisory Committee of BSI
- Individual manufacturers

BRITISH STANDARD SPECIFICATION FOR SHEET STEEL BATHS

FOREWORD

This revision of the British Standard has reduced the numbers of the standard range of baths previously included.

Embodied where appropriate in this standard are the recommendations for the co-ordination of dimensions in building as laid down in:

BS 2900. Recommendations for the co-ordination of dimensions in building:
Glossary of terms.

BS 4011. Recommendations for the co-ordination of dimensions in building.
Basic sizes for building components and assemblies.

PD 6444. Recommendations for the co-ordination of dimensions in building.
Co-ordinating sizes for fixtures, furniture and equipment.
Part 2 (Functional Group 5).

The co-ordinating sizes and plumbing sizes of the baths described are identical with those laid down in BS 1189 'Cast iron baths for domestic purposes' and BS 4305, 'Baths for domestic purposes made from cast acrylic sheet'.

Principles for a bath jig design are illustrated in Fig. 4.

Direct metric equivalents of imperial sizes where given in this specification will be amended as necessary when the relevant British Standards are metricated.

The problem of making a satisfactory junction between the surrounding roll (i.e. the rim or flange) of the bath and the adjacent wall have been considered in Fig. 5 and principles of joint sealing are illustrated in Fig. 6.

It has been decided to include in the standard a requirement that the supplier of the bath shall provide instructions for effecting a watertight seal between bath and the co-ordinating wall plane.

In order to cater for the growing use of handgrips for baths, this British Standard allows for the special ordering, by purchasers, of baths having this amenity.

Information which is required to be supplied by a purchaser is included in Appendix A.

Suggestions for the care in handling and use of baths are given in Appendix B.

In accordance with BSI's programme of metrication, this standard has been prepared in metric terms.

NOTE. The metric values are given in SI units: for further information reference should be made to BS 3763, 'The International System of units (SI)'.

SPECIFICATION

1. GENERAL

1.1 Scope. This British Standard specifies requirements for vitreous enamelled sheet steel baths of the types and sizes specified herein.

NOTE. The titles of the British Standards referred to in this standard are listed on page 2.

1.2 Designation of baths for ordering purposes. For the purposes of ordering, information to be supplied by the purchaser has been included as Appendix A.

1.3 Installation instructions

1.3.1 The maximum limit of manufacturing size allows a minimum joint margin of 3 mm between the actual rim of the bath and the co-ordinating plane.

1.3.2 The manufacturer shall provide advice for effecting a watertight seal between bath and the co-ordinating wall plane.

1.4 Inspection. The purchaser or his representative shall, if required, be granted facilities for the inspection of finished goods prior to delivery.

1.5 Rejection. The purchaser shall have the option of rejecting any bath purporting to be supplied to this British Standard if it fails to meet any of the requirements laid down therein.

1.6 Defects. The finished surface shall be free from ripples, and other defects deleterious to the provision of a satisfactory enamel coating.

A bath shall be liable to rejection if the finish shows any of the following defects:

(1) Chipping, unless not exposed on installation.

(2) When visually inspected in daylight from a height of 1.5 m there is evidence of dimples, lumps, rundown, specks, blisters, pinholes, or any other defects as will impair the bath's appearance or performance.

Lumps	} If readily attracting attention when viewed from normal eye level under natural light.
Rundown	
Sagging	
Specks	

(4) Blisters.

(5) Pinholes, if penetrating to metal.

~~The exterior of each bath shall be treated with a rust resistant finish.~~

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~~1.7 Manufacturer's certificate. The manufacturer shall, if required, issue a certificate testifying that the baths comply with the provisions of this standard.~~

1.8 Marking. Every bath supplied as being in accordance with the requirements of this standard shall be legibly marked on the underside as follows:

- (1) The manufacturer's name or mark.
- (2) The number of this British Standard, i.e. BS 1390.

NOTE. Attention is drawn to certification facilities offered by BSI; see the back cover of this standard.

2. MATERIALS

2.1 General

2.1.1 The steel shall be of first commercial quality enamelling steel of a minimum thickness of 1.6 mm which shall be free from laminations and surface cracks.

2.1.2 The interiors of the baths shall be adequately and evenly coated with vitreous enamel as specified in BS 1344 of a quality complying with the following requirements:

2.1.2.1 *Finish.* Gloss — visually good. Opacity — visually good.

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2.1.2.2 *Tests.* (1) *Abrasion test.* The enamel shall withstand a test for resistance to scratching by powdered apatite.

The particle size of apatite shall be such that the powder passes through a 250 μm sieve complying with BS 410 but is retained on a 212 μm BS sieve

Select an area for test and examine the adjacent area for comparison. The test shall be applied by sprinkling the test powder over an area of approximately 40 mm² and covering it with a small piece of chamois leather. A 1 kg mass having a circular base of 650 mm² cross-sectional area shall then be placed on the chamois leather over the powder and both drawn to and fro without additional pressure over a 13 mm travel of the enamelled surface 12 times.

The surfaces shall then be examined for scratching with the aid of an illuminated microscope of magnification $\times 8$. No visible scratching shall have taken place.

(2) *Alkali resistance test.* The enamel shall withstand the attack of a 10 % solution of anhydrous sodium carbonate in distilled water at 18 °C for a period of 20 min, the solution being applied to the bowl of the bath. At the end of this period, a small quantity of colloidal graphite* or manganese dioxide shall be well rubbed on to the dried enamel surface with a piece of clean soft cloth, chamois leather or velvet. The alkali-treated part of the surface shall then be examined in a good light. Any uniform colour stain, over the whole of the alkali-treated portion, shall be taken to indicate that the enamel is not alkali-resistant.

(3) *Acid test.* The enamel shall be tested in accordance with BS 1344 : Part 2 and shall comply with classification A of that standard.

(4) *Hot water test.* Prepare an enamelled specimen in accordance with BS 1344 : Part 12 and partially immerse it in boiling distilled water for 2 h. On removal from the water and drying, there shall be no visible signs of attack.

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