

Specification for
Terrazzo tiles

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Co-operating organizations

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Association of Consulting Engineers	Federation of Civil Engineering Contractors
British Precast Concrete Federation*	Greater London Council
British Quarrying and Slag Federation	Gypsum Products Development Association
British Railways Board	Institution of Civil Engineers
British Ready Mixed Concrete Association	Institution of Municipal Engineers
British Steel Industry	Institution of Structural Engineers
Cement and Concrete Association*	Institution of Water Engineers
Cement Makers' Federation*	National Federation of Building Trades
Chemical Industries Association	Employers*
Concrete Society Limited	Royal Institution of Chartered Surveyors
Department of the Environment	Sand and Gravel Association Limited
Department of the Environment-Building	Society of Chemical Industry
Research Establishment*	Welwyn Hall Research 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:

Incorporated Association of Architects and Surveyors	Royal Institute of British Architects
National Federation of Terrazzo-Mosaic Specialists	

This British Standard, having been approved by the Cement, Lime and Gypsum Industry Standards Committee, was published under the authority of the Executive Board on 8 October 1973

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Foreword

BS 4131 was first published in 1967 in response to a request from the National Federation of Terrazzo-Mosaic Specialists.

This is a metric version of that British Standard, which it now supersedes. It also incorporates minor corrections.

In drafting this British Standard, consideration was given to dimensional co-ordination in accordance with PD 6432, "Dimensional co-ordination in building. Arrangement of building components and assemblies within functional groups". The manufacture of terrazzo tiles, however, originated in Europe and from there comes the machinery and material for making the tiles in the UK. It was therefore considered more important to conform with European production than to adopt dimensionally co-ordinated sizes, if that meant making sizes different from those already in use in Europe. Consequently, the sizes specified in this standard are the existing metric sizes which form the bulk of current production.

Although the sizes in this standard may have a modular appearance, it should be carefully noted that they are *not* dimensionally co-ordinated nor are they intended to be so.

Despite dimensional co-ordination being excluded from the specified sizes in this standard, it is nevertheless intended to incorporate it in those sizes if the opportunity occurs during future revisions of the standard. This will depend on international co-operation, and BSI will make every attempt during international discussions to encourage other countries to adopt dimensionally co-ordinated sizes of floor tiles.

Meanwhile, **9.2** enables dimensionally co-ordinated sizes to be covered by this standard if they are provided by agreement between the purchaser and the supplier. Appendix F gives further information on dimensionally co-ordinated sizes.

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.

Summary of pages

This document comprises a front cover, an inside front cover, pages i and ii, pages 1 to 10, 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 Scope

This British Standard specifies requirements for hydraulically-pressed terrazzo floor and wall tiles.

NOTE The titles of the British Standards referred to in this standard are listed on the inside back cover.

2 Designation for ordering tiles

2.1 When placing an order or making an enquiry, tiles shall be designated by referring to the following:

- The number of this British Standard.
- The size of the aggregate in the facing layer (see **2.2**).
- The size and thickness of tile (see Clause **9**).
- The shape of tile if other than square.
- The finish of the tiles (see Clause **11**).

The colour of tiles and the type of aggregate shall be designated by referring to the manufacturer's sample.

2.2 The sizes of the terrazzo aggregate for the purpose of ordering tiles shall be described as follows:

- Up to 5 mm
- Up to 12 mm
- Up to 25 mm
- Random
- Pebble marble

Selection of aggregate sizes shall take into consideration the finished thickness of the tile.

3 Cement

The cement shall be ordinary white or coloured Portland cement complying with the requirements of BS 12.

4 Pigments

4.1 Pigments used shall normally comply with the requirements of BS 1014. Other pigments may be used by agreement between the purchaser and the supplier, but most pigments not covered by BS 1014 may fade, especially if exposed to sunlight and weathering.

4.2 In order to achieve the best staining power and homogeneity, pigments should be milled in with the dry cement before adding to the mix, or alternatively, coloured cement should be used.

NOTE All colours, including the natural grey colour of ordinary cement, may become obscured or reduced in intensity to varying degrees, if conditions during the manufacture and storage of the tiles are not so arranged as to avoid formation of "lime bloom" or efflorescence. The incorporation of an integral waterproofer, such as a metallic soap, known not to give rise to damaging side effects, may be considered to inhibit fading due to lime bloom (see Clause **6**).

5 Aggregate

5.1 Facing layer

The aggregate shall consist of good quality marble, or other natural stone of similar characteristics, of adequate hardness, angular in shape as distinct from elongated and flaky. Aggregate shall not contain clay, iron oxide, pyrites or other harmful foreign matter in such a form or in sufficient quantity to affect adversely the bond or strength, or cause surface failure. Aggregate should preferably be graded and it is important to avoid a high fines or dust content. The approximate sizes of aggregates corresponding to commercial grades are given in Table 1.

Table 1 — Sizes of marble aggregate corresponding to commercial grades

mm		
1	—	2
2	—	4
2	—	5
4	—	6
5	—	9
9	—	12
12	—	20
20	—	25

5.2 Base layer

The aggregate shall consist of naturally occurring materials complying with the requirements of BS 882, such as crushed or uncrushed gravel, or crushed stone, with natural sand, crushed stone sand or crushed gravel sand.

6 Additives or admixtures

Additives or admixtures other than pigments (see Clause **4**) may be incorporated by agreement between the purchaser and the supplier, in special circumstances.

7 Manufacture

7.1 The tile shall be vibrated to an extent which allows the entrapped air to escape to the surface and compacts the aggregate at the wearing face and it shall be hydraulically pressed with a pressure depending on the area of the tile but sufficient to mould the facing to the backing and to enable the tile to meet the performance tests specified in this standard.