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ARAB ENGINEERING BUREAUS

## 6 TERRAZZO

### 6.1 GENERAL REQUIREMENTS

#### 6.1.1 Scope

- 1 This Part provides specification for terrazzo products and the installation of same.
- 2 Related Parts and Sections are as follows:

This Section

- Part 1 ..... General
- Part 5 ..... Tiles
- Part 7 ..... Stone Flooring
- Part 8 ..... Unit Masonry Flooring
- Part 9 ..... Floor Screeds and Treatments
- Part 10 ..... Joints Caulking and Sealants

#### 6.1.2 References

- 1 The following standards are referred to in this Section:
  - BS 8000.....Workmanship on construction sites
  - BS 8000-11 .....Workmanship on building sites - Internal and external wall and floor tiling. Ceramic and agglomerated stone tiles, natural stone and terrazzo tiles and slabs, and mosaics. Code of practice
  - BS 8204.....Screeds, bases and in situ floorings
  - EN 13748-1 .....Terrazzo tiles. Terrazzo tiles for internal use
  - EN 13748-2 .....Terrazzo tiles. Terrazzo tiles for external use

## 6.2 PORTLAND CEMENT TERRAZZO

### 6.2.1 General

- 1 Terrazzo floor tiles and skirtings as described below are to comply with EN 13748-1 and EN 13748-2, BS 8204, and BS 8000, Part 11 as applicable.

### 6.2.2 Terrazzo Floor Tiles and Skirtings

- 1 Portland cement and aggregates for the base layer and pigments used in the manufacture of the tiles are to comply with Part 5 where applicable and the manufacturer's recommended standards. Aggregates for the facing layer are to consist of good quality, hard marble or other approved natural stone with similar characteristics. The marble aggregates are to be graded, but not to include a high fines or dust content and shall be sharp and angular.
- 2 The base layer is to consist of 3 to 3.5 parts of aggregate to 1 part of cement, proportioned by weight. The facing layer should be such as to provide a minimum wearing surface of 6 mm after grinding and generally consist of 2.5 parts of aggregate to one part of coloured cement by volume.
- 3 During manufacture, the tiles are to be vibrated to an extent which allows the entrapped air to escape to the surface and compacts the aggregate at the wearing surface and hydraulically pressed sufficient to mould the facing to the base layer.

- 4 The surface of the facing layer is to be ground and slight imperfections to be filled by grouting with a neat cement paste coloured to match the original mix and well worked into the surface before it is re-ground to a fine grit finish.
- 5 Skirting tiles are to have square or bevelled, ground top edges. Cut floor tiles are not to be used for skirtings.
- 6 The tile facings are to be free from projections, depressions, flakes and crazes and the aggregate be evenly distributed. The tiles should be square and of rectangular cross section with sharp and true arises, and comply with the performance requirements of EN 13748-1 and EN 13748-2 and be of the minimum thickness given in Table 6.1.

Table 6.1  
Thickness of Terrazzo Tiles

Length of Each Side (mm)	Minimum Thickness (mm)
150	20
200	20
225	20
300	30
400	35
500	40

#### 6.2.3 Laying Terrazzo Tiles

- 1 The areas of concrete substrata to be tiled are to be brushed clean and dampened until absorption ceases and the finished floor level is to be established by means of dots and rules.
- 2 The mortar for bedding the tiles is to be to the thickness as detailed elsewhere in the Project Documentation. It shall consist of 1 part of cement to 4 parts of sand by volume, mixed semi-dry in a mechanical mixer with only sufficient water added to give a crumbly consistency that retains its shape when squeezed in the hand.
- 3 The mix is to be spread to a thickness approximately 10 mm greater than that actually required for the bed and thoroughly compacted by tamping and drawing off to the required level with a screed board. Only sufficient mortar is to be mixed and spread as can be covered with tiles before it has attained its initial set.
- 4 A stiff slurry consisting of cement and water is to be prepared and spread on the back of the tiles about 2 mm thick before they are laid on the bed and tapped firmly into position with a rubber or wooden hammer. The tiles are then to be vigorously beaten with a wooden beater to ensure a true surface and that contact between the titles and bedding is complete.
- 5 The tiles should be laid with joints of about 3 mm wide. Proper alignment shall be maintained with continuous joints in both directions. The joints are to line-up through doorways where possible.
- 6 At least 24 hours after laying the tiles, the joints are to be filled with neat cement grout to a colour approved by the Engineer. Excess grout is to be removed with a squeegee and be cleaned off the face of the tiling and surrounding surfaces as the work proceeds.

- 7 The tiles are to be laid with a minimum of cut tiles, but where it is necessary, they are to be cut with a power driven saw and any rough edges be rubbed smooth. Rough cutting by means of a chisel is not permitted.
- 8 Tiles are to be laid level or to 1 % falls in “wet” areas, as may be required. Localised variation in level for a nominally flat floor is to be a maximum of  $\pm 3$  mm under a 3 m straightedge. Particular care is to be taken in “wet” areas to prevent low spots and the pooling of water.
- 9 Skirting is to be fixed in such manner that their vertical joints coincide with the horizontal joints of the floor tiles.

### **6.3 PRECAST TERRAZZO UNITS**

#### **6.3.1 General**

- 1 Precast terrazzo units to comply with the requirements of EN 13748-1 and EN 13748-2.
- 2 Precast terrazzo treads and risers are also to comply with Clause 5.3.3-16 of Part 5 of this Section except that the facing layer of the treads are to be such as to provide a minimum wearing surface of 12 mm after grinding.
- 3 All exposed edges of the units are to be terrazzo faced.

END OF PART