

SECTION 09310

CERAMIC FLOOR AND WALL TILES

PART 1 - GENERAL

1.01 DESCRIPTION

- A. The extent of tile work is shown on drawings and in schedules and includes but is not limited to the following:

1. Ceramic wall tiles.
2. Ceramic floor tiles (non slip).

1.02 QUALITY ASSURANCE

- A. Codes and Standards: Comply with the applicable requirements of the following codes and standards:

BS - British Standards:

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| 882 | Aggregates from Natural Sources for Concrete. |
| 890 | Building Limes. |
| 1014 | Pigments for Portland Cement and Portland Cement Products. |
| 1199 | Building Sands from Natural Sources. |
| 3148 | Tests for Water for Making Concrete. |
| 4248 | Supersulphated Cement. |
| 5385 | Wall and Floor Tiling. |
| 6431 | Ceramic Floor and Wall Tiles. |
| PD | Published Documents |
| 6472 | Guide to Specifying the Quality of Building Mortars. |

- B. Source: Provide materials obtained from only one source for each type of tile and color to minimize variations in appearance and quality.

1.03 SUBMITTALS

- A. Manufacturer's Data: Submit manufacturer's specifications and installation instructions for all materials required. Include certifications and other data as may be required to show compliance with these specifications.
- B. Samples: Submit samples of each type, class and color of tile required, not less than 300 mm square on plywood or hardboard backing, and grouted as directed. Engineer's review will be for color, pattern and texture only. Compliance with all other requirements shall be the exclusive responsibility of the Contractor. The Engineer will make color selections from manufacturer's standard colors.

1.04 PRODUCT DELIVERY, STORAGE AND HANDLING

- A. Deliver materials and store on the site in original containers with seals unbroken and labels intact until time of use, in accordance with manufacturer's directions.

1.05 SPARE MATERIAL

- A. The Contractor shall provide at his own cost spare material of 1% (one per cent) of each tile used in clean, marked cartons for the Client's use.

PART 2 - PRODUCTS

2.01 TILE

- A. Provide the required sizes/dimensions of ceramic floor and/or wall tiles for the required locations, all as shown on drawings. Generally, ceramic wall tiles are of the following types:
 - Unglazed non slip ceramic floor tiles
 - Glazed ceramic floor tiles
- B. Trim and Special Shapes: Rounded external corners and trim shapes at head, jamb and sills of openings, of same material and finish as glazed wall tile, and as follows:
 - 1. Skirting: Skirting units having same matching types and texture as that of the floor tiles as stated above and of the sizes stated in the Contract Documents.
 - 2. Trim at Top of Thin-Set Wainscots: Surface-bullnose or bullnose cap.
 - 3. External Corners: Bullnose shapes, with an inside radius of not less than 19 mm, unless otherwise shown.
 - 4. Internal Corners: Field-buttet square, except use square corner, combination angle and stretcher type cap.

2.02 MORTAR AND GROUT

- A. Portland Cement Mortar and Grout Materials:
 - 1. As specified in BS 4248 and PD 6472 series of materials and installation specifications.
 - 2. Color Pigment: Mineral oxides, unaffected by lime, cement or weathering. use only when required for selected grout color to BS 1014.
- B. Commercial Cement Grout: A proprietary compound of portland cement and additives, factory-blended to decrease shrinkage and increase moisture resistance.
- C. Latex Grout: A proprietary compound composed of portland cement with latex additive for a more flexible and less permeable grout.

PART 3 - EXECUTION

3.01 INSPECTION

- A. The Contractor shall examine the substrates and the conditions under which the tile work shall be carried out and correct any unsatisfactory conditions. Do not proceed with the work until unsatisfactory conditions have been corrected in a manner acceptable to the Engineer.

3.02 INSTALLATION

- A. General: Comply with the relevant sections of BS 5385, regarding the general applications of floor and wall tiling
 - 1. Comply with all relevant conditions as set out in BS 6431 in respect of the quality of tiling. In all respects it will be the Contractor's responsibility to ensure that compliance takes place.
 - 2. Handle, store, mix and apply proprietary setting and grouting materials in compliance with the manufacturer's instructions.
 - 3. Extend tile work into recesses and under equipment and fixtures to form a complete covering without interruptions, except as otherwise shown. Terminate work neatly at obstruction edges and corners without disruption of pattern or joint alignment.
- B. Setting Beds: Provide setting beds as shown on the drawings. When not otherwise indicated, provide one of the following, subject to the specified limitations.
 - 1. Use portland cement mortar setting beds for walls and floors where indicated as mud-set.

2. Use dry-set portland cement mortar setting bed for walls and floors where indicated as thin-set.
- C. Jointing Pattern: Unless otherwise shown, lay tile in grid pattern. Align joints when adjoining tiles on floor, base, walls and trim are the same size. Lay out tile work and center tile fields both directions in each space or on each wall area. Adjust to minimize tile cutting. Provide uniform joint widths, unless otherwise shown.

3.03 ADJUST AND CLEAN

- A. Cleaning: Unglazed tile may be cleaned with acid solutions only when permitted by the tile and grout manufacturer's printed instructions, but not sooner than 10 days after installation.
- B. Finished Tile Work: Leave finished installation clean and free of cracked, chipped, broken unbonded or otherwise defective tile work.
- C. Protection: Protect installed tile work with Kraft paper or other heavy covering during the construction period to prevent damage and wear.

** END OF SECTION **