CC Höganäs Building Ceramics

Floor, Standard Design, Code G2

Laying tiles in cement mortar on a sliding layer of plastic sheet

Laying instructions
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General

These instructions refer to CC Höganäs clinker tiles or dry-pressed unglazed tiles.
The sub-floor should be dry and thoroughly cleaned before the plastic sheet is applied. Before starting work, the varying heights required in the mortar should be determined and marked on the walls at high and low points. It is best to compensate for uneveness by leveling off the sub-floor, but the levels required for the floor being laid should always be checked and clearly marked.
The length and breadth of the surface should be measured and the number of tile courses (including joints) should be calculated. Joints should be 5–7 mm wide movement joints 10–15 mm). The course intervals should be marked on a gauge float, which can be used during laying.
Guides should be used to mark the surface over which the bedding mortar is spread. Guides should consist of absolutely straight laths or steel profiles. Each time a guide is moved, it must be re-positioned accurately with respect to the required height.

Bedding mortar

Recommendations for mortar thickness (minimum 40 mm), grades of aggregate, etc. are to be found in "CC Höganäs Building Ceramics, Floor, Standard Design, Code G2, Design recommendations".
Compacting the mortar is important for obtaining sufficient strength. Compacting the loose mortar that has been spread on the floor to 3/4 of its original thickness will normally ensure appropriate strength. The mortar should be carefully compacted with a shovel, but if the floor is being laid in an industrial facility the mortar should be vibrated or treated mechanically by other appropriate techniques.
Bedding mortar with a thickness exceeding 50 mm should be applied in two layers, each of which should be compacted. The second layer should be applied immediately after the first has been compacted.
The mortar should not be too dry. Appropriate consistency is 8 VEBE (b). Appropriate water-cement ratio is 0.38. The actual water content of the aggregate should be taken into account. Normal proportions for mix are 1 part cement to 4 parts aggregate, by weight. The precise proportions are dependent on the function of the mortar. The components should always be mixed by weight when the first batch of mortar is prepared. Equivalent volumes can be used for subsequent batches, provided that rigid containers are used.

Tiling

1. The sub-floor should be cleaned carefully before starting work.

2. A 0.1 mm plastic sheet should be unrolled on the sub-floor. A soft brush should be used to smooth out the sheet and remove any air bubbles. Roll out each sheet so that it overlaps the preceding one.

3. Spread out the mortar and compact it carefully. Do not spread out more mortar than is needed for 4–5 courses of tiles at one time.

4. Position the guides at intervals of 2–3 metres, or at any other distance that is apropriate with respect to the area to be tiled. The mortar should be levelled at the right height according to the guides.

5. A fluid cement slurry (cement and water) should be spread over the bedding mortar.

6. When the surplus water has been absorbed by the mortar and the slurry has taken on a matt appearance, the tiles should be laid out according to the markings on the gauge float.

7. The tiles should be tamped down into the slurry.

8. The evenness of the surface of each newly laid section should be carefully checked with a gauge float and adjusted if necessary.

9. A strip of 10–15 mm cellular plastic should be laid along each expansion joint.

Curing and restricting traffic

A newly laid floor should be kept moist for three days. No pedestrian traffic should be allowed on the floor for 4–6 days. Heavier traffic should be avoided for at least 14 days after laying.

Grouting

Use CC Höganäs cement-based grout after curing is finished. If plastic-based grout is used, the floor must be more or less dry. If possible, the floor should be allowed to dry for at least 6 days after curing is finished. Grouting should be applied in accordance with instructions in "CC Höganäs" Building Ceramics, Floors, jointing".

Grouting of movement joints

10. When the jointing compound has been applied and allowed to dry, the cellular plastic (see Fig. 9) should be scraped out of the movement joints down to the level of the bottom of the tiles. Check that the edges of the tiles are free of mortar, etc. For optimum adhesion to ceramic, concrete etc. edges of movement joints should be primed with CC Höganäs Primer 37. The movement joints should be filled with CC Höganäs Habenit 50 jointing compound, according to the instructions on the package.

11. The movement jointing compound should be applied with a mastic gun or pointing trowel. A spatula should be used to fill the mastic gun with compound after it has been mixed.

12. Mask either side of the joint with tape before commencing. Prime the movement joint edges with CC Höganäs Primer 37. Fill the movement joint liberally.

13. Cut away the excess compound, which can be used again, and smooth the surface with a flatbladed palette knife.

14. Remove the masking tape as soon as possible.

15. After the surface has been allowed to cure for a few minutes, the joint can be smoothed with a flat wooden stick dipped in acetone.