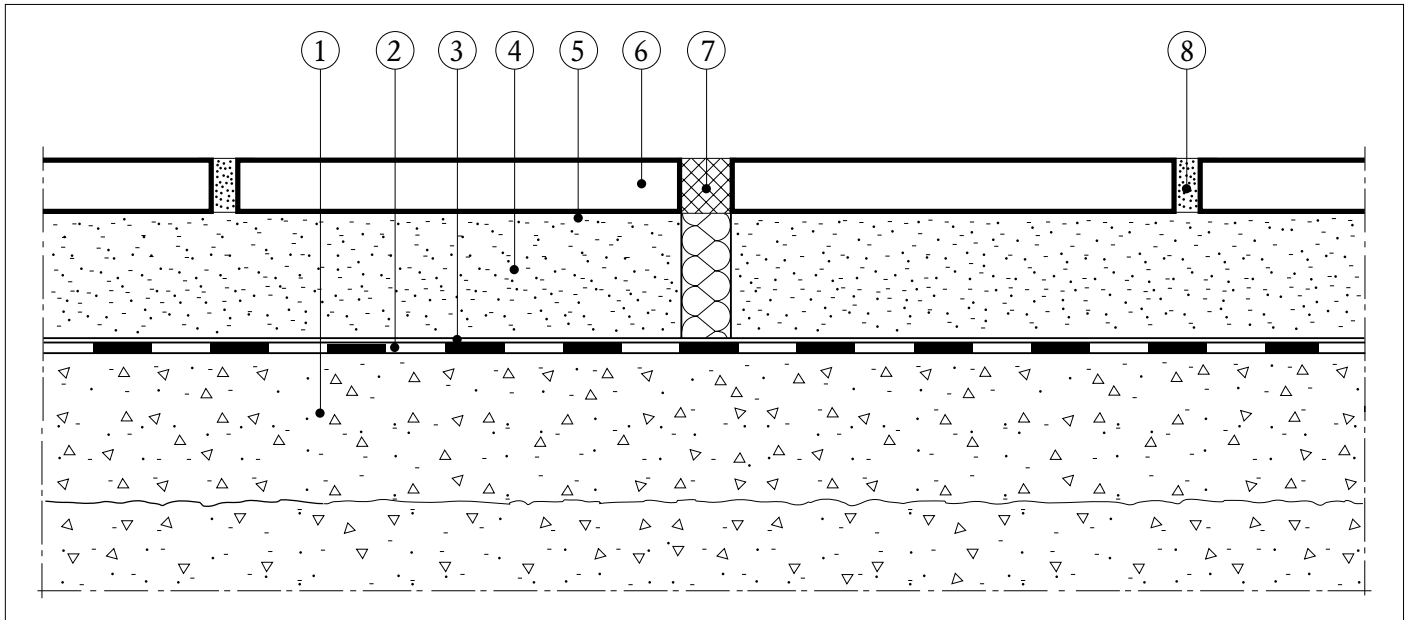


Applications

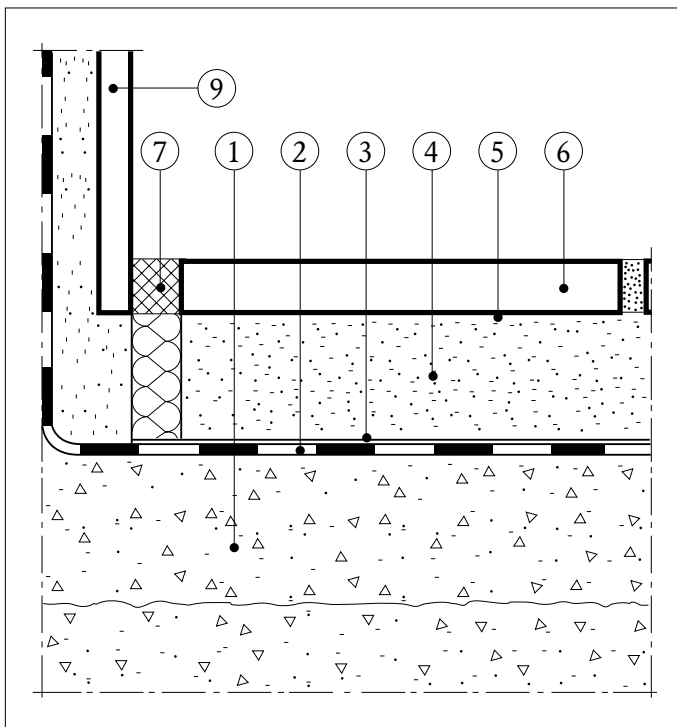
The G2 floor with a waterproof membrane is appropriate for floors requiring a waterproof seal, where temperature and moisture variations occur and there is a risk of considerable deformation in the sub-floor.

The G2 floor without a waterproof membrane can be used for floors where a waterproof seal is not required but where temperature variations occur and there is a risk of considerable deformation in the sub-floor.

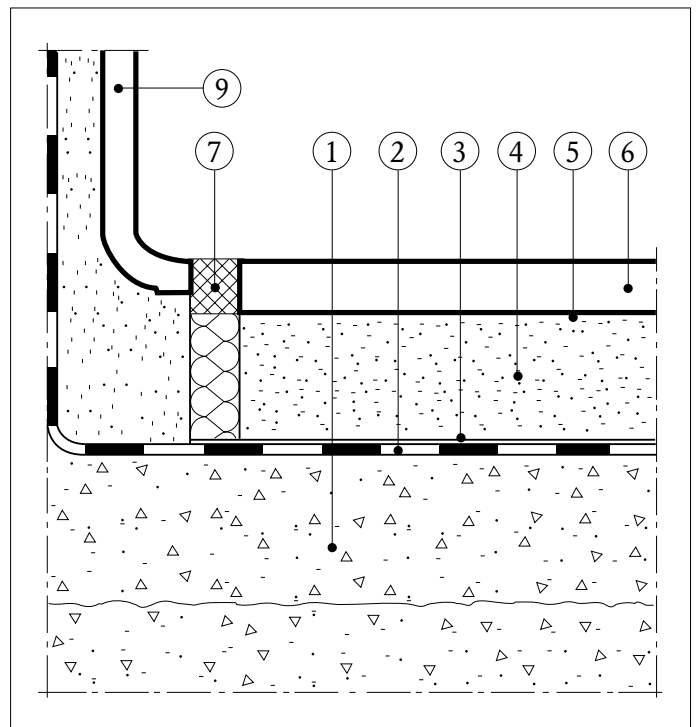
Design



Typical cross-section.



Cross-section through wall with straight skirting tile.

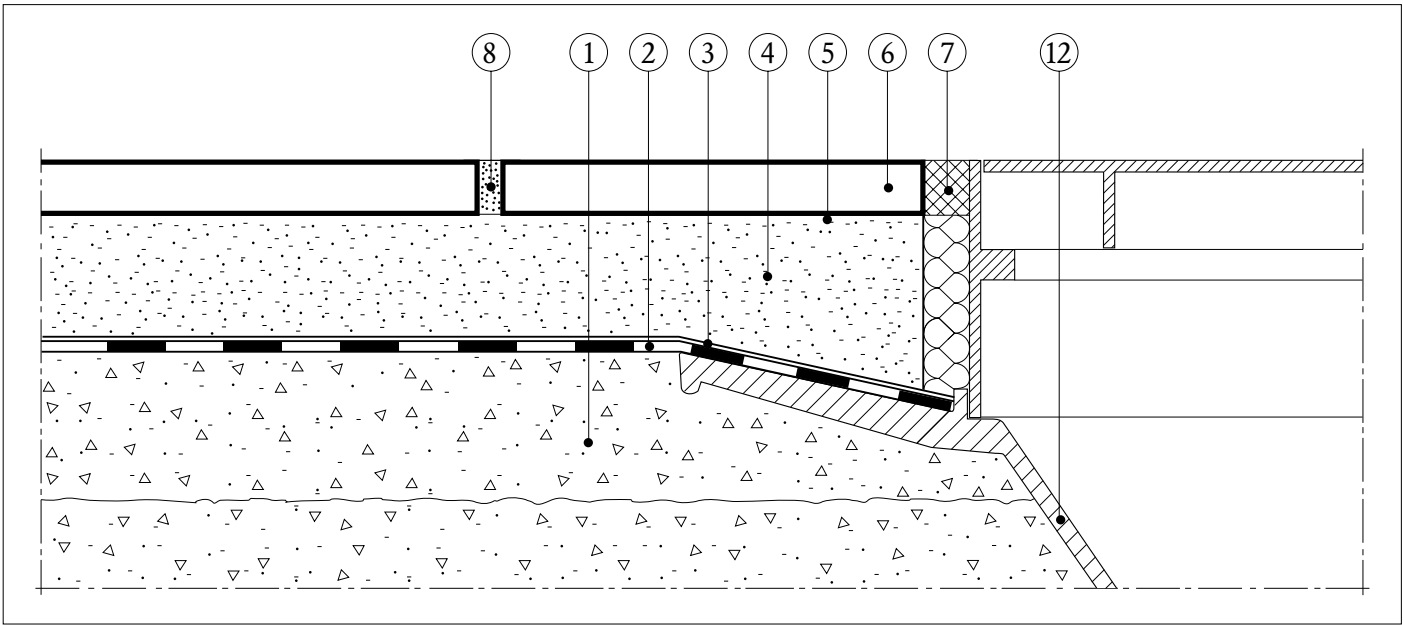


Cross-section through wall with cove skirting tile.

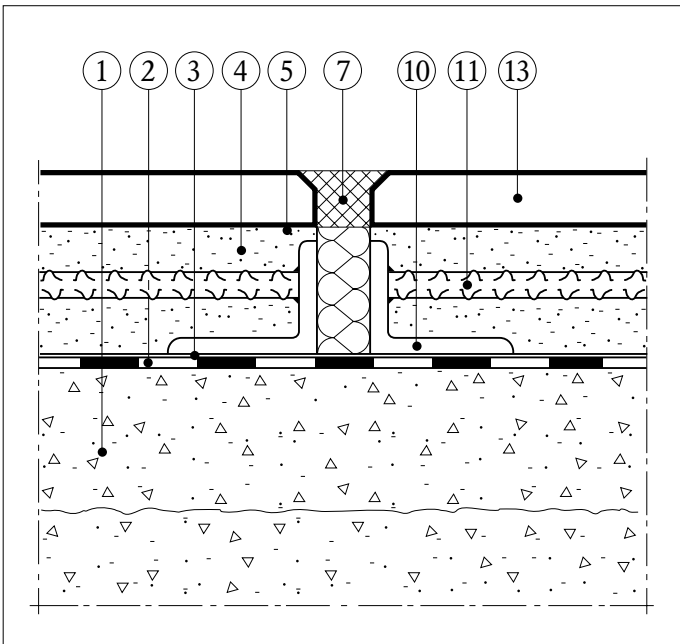
Legend

1. Sub-floor
2. Waterproof membrane
3. Sliding layer
4. Bedding mortar

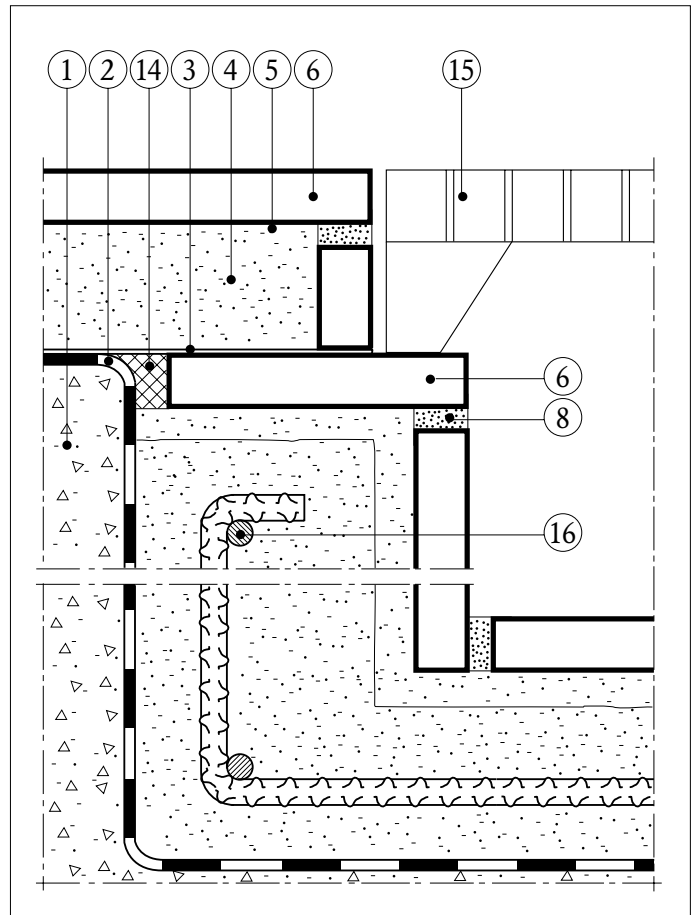
5. Cement slurry
6. Tiles
7. Expansion joints
8. Joints
9. Skirting tiles



Section through floor drain.



Reinforced expansion joint.



Gutter with ceramic lining.

Legend

- | | |
|------------------------|------------------------|
| 1. Sub-floor | 10. Edge reinforcement |
| 2. Waterproof membrane | 11. Reinforcing rod |
| 3. Sliding layer | 12. Floor drain |
| 4. Bedding mortar | 13. Bevelled tiles |
| 5. Cement slurry | 14. Sealing compound |
| 6. Tiles | 15. Floor grating |
| 7. Expansion joint | 16. Reinforcement |
| 8. Joints | |

1. Sub-floor

The foundation should be even enough so as not to impede the movement of the floor lining.

2. Waterproof membrane (if necessary)

See the architect's specifications.

3. Sliding layer

A single sheet of 0.1 mm plastic.

4. Bedding mortar

The bedding mortar must be at least 40 mm thick. The table on the next page indicates appropriate thicknesses as well as requirements for reinforcement.

Floating floor on foundation of:	Bedding mortar thickness, mm for following wheel loads, kp					
	100	200	300	600	1000	1400
A. Concrete + sliding layer 1 sheet 0.1 mm plastic	40	40	40	50k	60k	70k
B. Waterproof membrane + sliding layer of 1 sheet plastic	40	40	50k	60k	60ka	70ka
C. Foam or cork sheet + sliding layer of plastic with or w/o waterproof membrane	50	60k	60k	60ka	70ka	70ka

k = edge reinforcement as in figure, page 2.

a = reinforcement rod \varnothing 4.2 mm $\#$ 150 mm in lower edge.

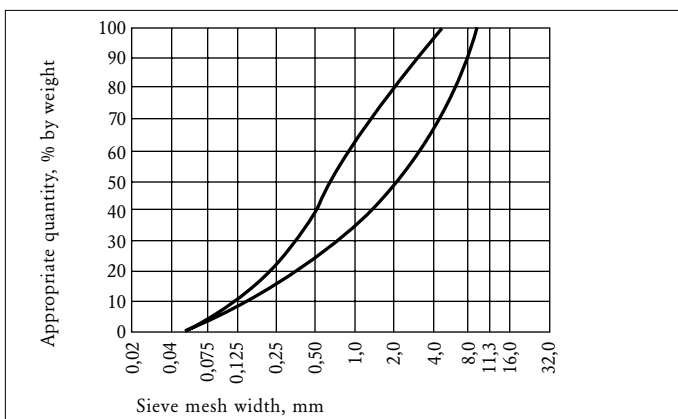
Bedding mortar for floors in conventional buildings should have an average crushing strength of at least 15 MPa. Mortar in floors in industrial facilities and/or where traffic load exceeds 600 kp per wheel should have a crushing strength of at least 20 MPa. Crushing strength recommendations refer to tests of finished floors after 28 days of use.

The mortar should be carefully compacted to ensure maximum strength. The surfaces of industrial floors 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 one has been compacted.

Special care should be taken to ensure an even surface and well-filled joints in floors that are exposed to traffic with small, hard wheels. Floors exposed to heavy traffic (wheel pressures exceeding 600 kp) should have reinforcement joints across the direction of traffic and in the door openings. These floors should include bevelled tiles and steel profile reinforcement.

Aggregate for bedding mortar with a thickness of 40–50 mm should correspond as closely as possible to the upper grading curve in the diagram below. Aggregate for thicker bedding should correspond to the lower grading curve. Aggregate should meet maximum requirements for cleanliness.



An appropriate mix for bedding mortar consists of 1 part Portland cement to 4 parts aggregate, by weight. The mix can be determined by volume in a rigid container after checking the weights of the materials together with the container. The appropriate water-cement ratio is 0.38. Appropriate consistency is 8 VEBE (b). The actual water content of the aggregate should be taken into account.

5. Cement slurry

Cement and water should be mixed to a fluid consistency.

6. Tiles

Ceramic tiles with a thickness of 10–25 mm should be used. Tile quality should be selected with respect to the type and intensity of stress.

7. Expansion joints

Joint width: 10–15 mm. Jointing compound: CC Höganäs Habenit 50. Joint thickness should equal tile thickness. The joint should be based on cellular plastic (or similar material) flush with the bottom of the tile. Expansion joints should be made so as to form squares of 40–80 m² in area.

The floor lining should be separated by expansion joints from walls, columns, foundations, drains, wells and pipe entry holes.

The squares should be arranged so as to avoid excessively complex geometric figures and should be as quadratic as possible. The sides of the squares should be not less than 3 metres and not more than 12 metres long.

In floors exposed to heavy traffic, these squares should be large, with a minimum of joints across the direction of traffic.

Expansion joints should follow the ridges on the floor and should normally not cross drains.

8. Joints

Joint width: 5–7 mm. Cement-based grout CC Höganäs FB 20 (grey), FB 21 (brown) or FB 23 (dark grey). Jointing compound for floors exposed to chemicals should be selected in consultation with our Building Materials Dept.

9. Skirting tiles

Cove skirting tiles or straight wall or floor tiles may be used.

10. Reinforcement profiles

Steel L-profiles should be used. Profile height should be somewhat greater than mortar thickness. Note: overlaps in the waterproof membrane may lead to variations in the thickness of the bedding mortar. Reinforcement should be installed to a distance of at least 0.5 m on either side of traffic lanes. Door openings should be reinforced with steel profiles up to the surface of the floor.

11. Reinforcement rods

\varnothing = 8 mm, length 250 mm and c/c 250 mm. The rods should be welded to the L-profiles.

12. Floor drains

Floor drains should be fitted with spacer rings.

13. Bevelled tiles

Use CC Höganäs nos. 507 or 508 for floors consisting of the tile no. 500. Use bevelled tiles nos. 507 GK or 508 GK with floor tiles no. 500 GK.

14. Sealing compound

CC Höganäs jointing compound Habenit 50.

15. Floor grating

16. Reinforcement rods

\varnothing = 8 mm.

