

Ceramic tiles –

Wet pressed, sintered ceramic jointed tiles.

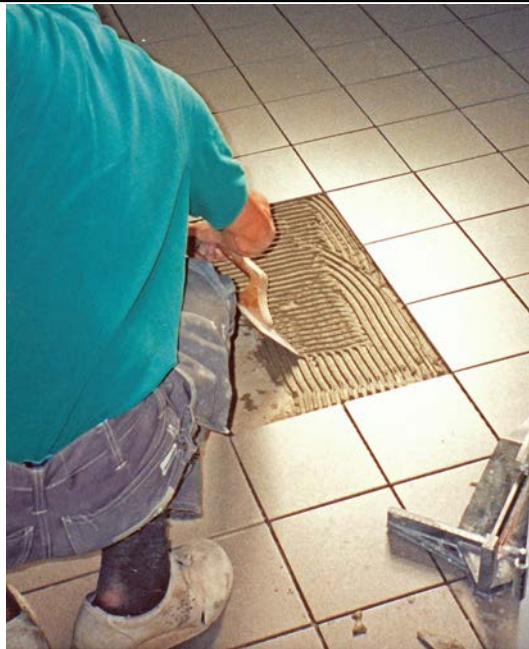
Waterproof = Should withstand regular, direct contact with water.

Pre-conditions

Preparation

Self-inspection

Execution



This **work instruction** is designed for use in detailed planning and preparation of work on construction projects. With thorough planning high levels of personal safety and optimal work apportionment can be achieved at the same time as the work can be organized efficiently and cost effectively.

Safety — Risk assessment

Work activity & Problem	P	C	Risk= P*C	Action
Improper working posture = overloading	10	20	200	Regular tidying
Cluttered workplace =Twisting or fall injuries	10	15	150	

Probability = P
 Consequence = C
 Risk = P * C

Assessment of probability

P = 0,1	Very unlikely	(<1 times/10 years)
P = 1	Unlikely	(1 times/10 years)
P = 3	Low probability	(1 times/3 years)
P = 10	Relative probability	(1 times/year)
P = 30	Probable	(1 times/month)

Assessment of consequences

C=0,5	Trifle	
C=1	Tiny	(1 - 2 days sick leave)
C=5	Small	(3 - 7 days sick leave)
C=15	Tactile	(8 - 29 - " -)
C=70	Severe	(30-299 - " -)
C=500	Very severe	(>300 - " -)

Safety — Protective gear

Text from the Working Environment Authority's brochure Safer Construction Work

Personal Protective Equipment § 71

Safety helmet and safety shoes shall be used unless it is clearly unnecessary. Other personal protective equipment such as eye protection, hearing protection and gloves should be worn when required.

First Aid § 31

First Aid should be available. Staff who are trained to provide First Aid should always be available.

Facilities and First Aid equipment should be marked with signs.

There shall also be signs presenting phone numbers, address and, if necessary, route description of the local emergency services.

Regulations related to First Aid are presented in AFS 1999:7 "First Aid and Emergency Support".



Equipment and machinery

Equipment

- Tile cutter
- Angle saw – with dust extraction!
- Tile clipper
- Tile file
- Tile Drill - Here a brace drill with diamond drill
- Buckets for various types of mortar
- Electric drill with cord for use in mortar mixing
- Mortar trowels
- Toothed spackles, Mortar comb
- Wet sponge for smoothing the grouting
- Tiles
- Joint- spacer or joint string
- Setting-out string or laser
- Aluminum staves, square
- Ruler and pencil
- Spirit levels
- 'Sponge – squeezer'

- Sack for residues

- Equipment trailer



Deliveries - logistics

Materials

- Tiles
- Mortar, pointing material and grout
- Water

Storage of materials

When laying and setting, the materials, base and worksite shall have a minimum temperature of 10° C. The material shall be stored on pallets or studs and protected from moisture. The packages should not be opened before the assembly.

Mixture of mortar

Grout should be mixed in machine mixers. Small quantities may be mixed with a mechanical mixer.

Consult with the management for suitable sites to prepare the grout.

Residues

Plan for the management of waste; empty sacks, mortar and tile waste. For example, a feed cart, garbage bags or crane handled bags.

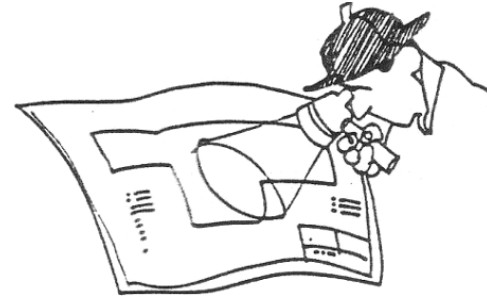


Self-inspection 1(2)
Template & instructions

h	Check	Method or equipment	Frequency	Result	Date	Signature	Deviation/Remedy Approval/Non-A
1	Waterproof coatings shall be performed in the manner specified	Technical Specification	Before starting work				
2	Waterproofing membrane, sealants and fixing materials shall meet requirements	Technical Specification	Finished space				
3	The joints are filled to the extent specified	Ocular	Finished space				
4	Wet areas must not be used before a specified time	Announcement	Finished space				
5							
6							
7							
8							
9							
10							
11							

Quality criteria for the project and the product

- Study Drawings, Specifications and Inspection planning
- Think through the alternative **methods of production** and handling of materials, tools etc. that can meet the requirements



Pay particular attention to

- Check the specification and the drawings concerning requirements for slope and smoothness
- Do not carry out the coating if the substrate does not meet requirements
- Follow manufacturer's instructions for glue etc and application
- Be diligent with penetrations and connections

The completed waterproof membrane

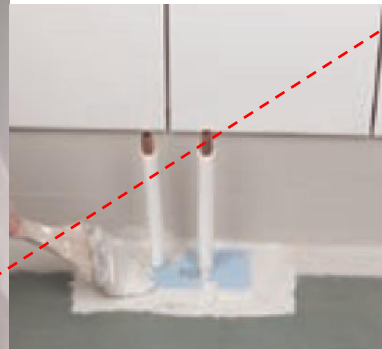
The fundamental requirement for a clinker surface is a completely waterproof membrane.

Regarding this, see AB Swedish Wet room control on site www.gvk.se and Work Instruction Surfaces flooring, waterproof.

Workflow:

- Priming
- Joints and corners are sealed with fiber and sheet strips
- Penetrations performed using pipe sleeve cuffs
- Then one or two coats of rubber solution

*Pictures:
PCI Secure
wet room*



Setting out

Principal lines are determined and marked on the floor.

Laying of the tiles

Begin at the midline and fill out towards the walls - working out towards the door...

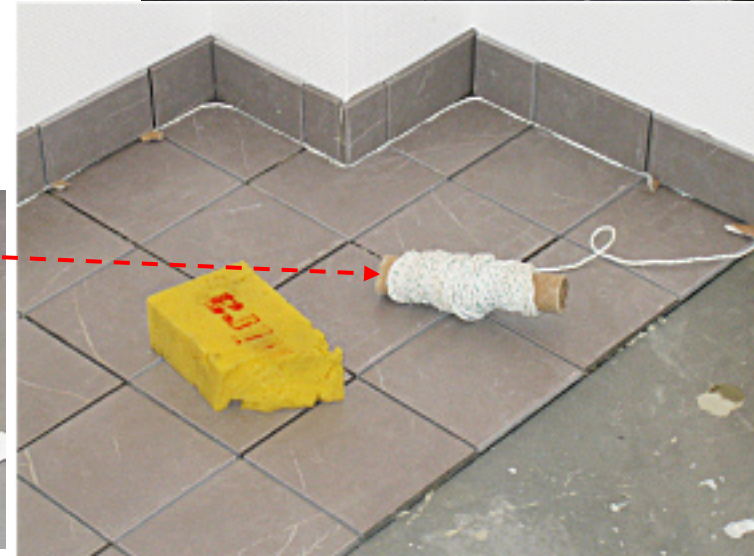
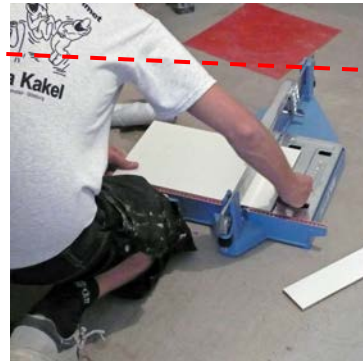
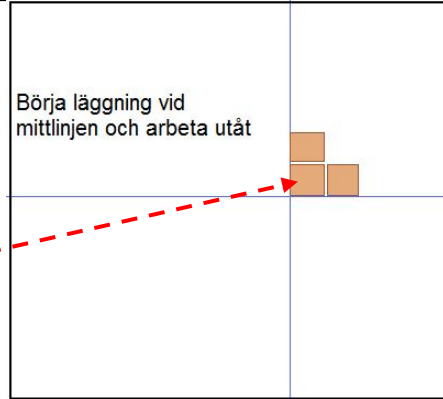
Mortar is distributed with a toothed trowel. The plates are set slightly askew on the ground and pushed back and forth, in order to distribute the mortar, before they are pressed into place.

A wetted joint string ensures the same seal width. Here the tiled plinth is laid simultaneously. In order to get the top surface of the tiles in line, some plates are wedged.

Stairs

Laid up from above downwards.
Close off for traffic!

Cutting is performed as for wall tiling.



Penetrations in floors

In wet rooms penetrations are made in the floor for a toilet and floor drain.
(Bath or Shower)

At places of significant floor slope a camber must be built up by cutting tiles “on the diagonal” and fitting together.
The grid in the picture was managed with “simple” cutting.



Jointing

The jointing is carried out after the laying or setting of the tiles and the adhesive has hardened – approximately after one day.

When using mortar and grout and other cement bonded materials, the finished coating and cladding shall be held moist and at a temperature above 10° C for at least 3 days.

