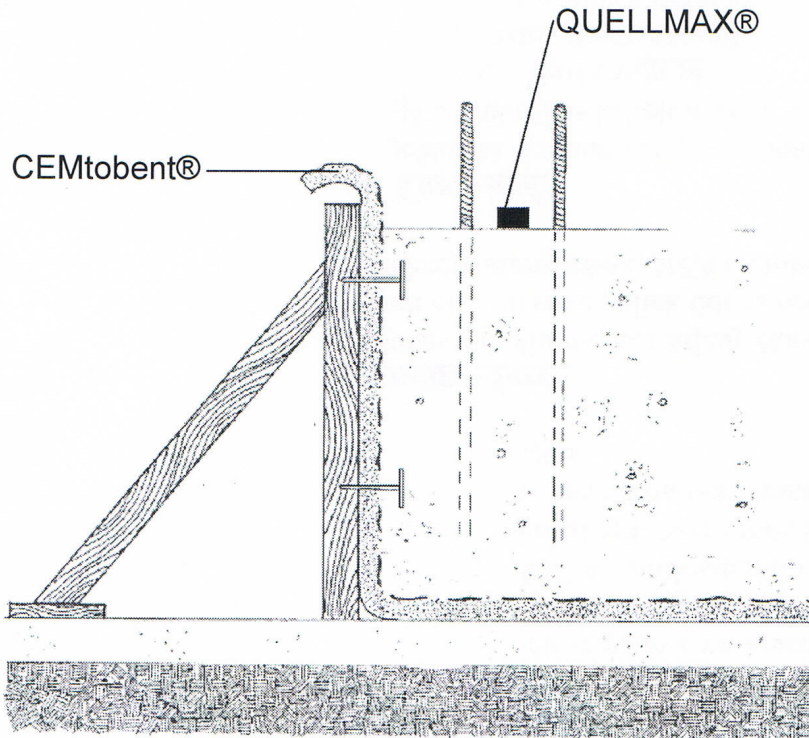
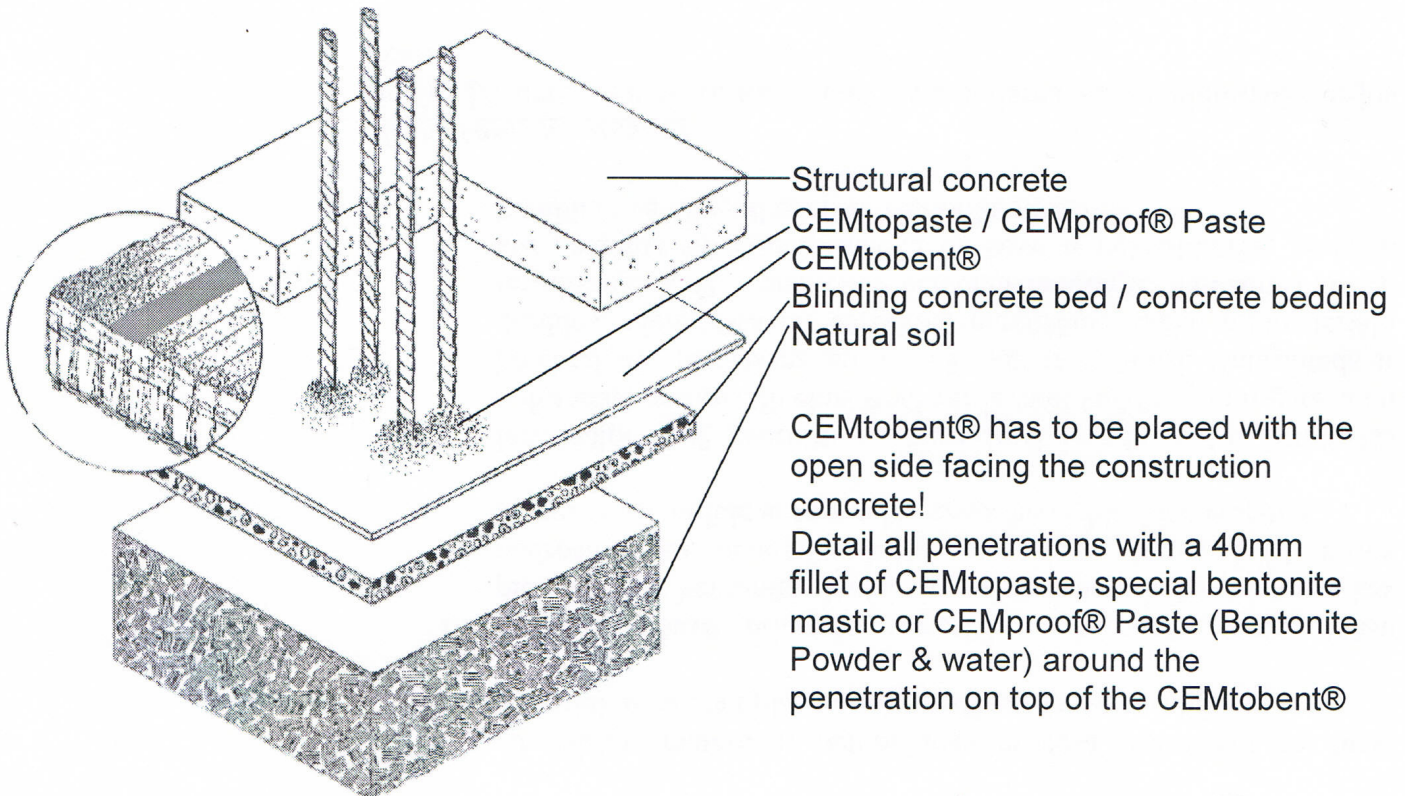


# CEMtobent® Installation Guidelines



Place CEMtobent® over the properly prepared concrete bedding / blinding concrete bed with the dark grey stripe (CEMtobent® DS) or with the grey open side (CEMtobent® CS) of the geotextile side facing the concrete to be waterproofed!

Overlap all adjoining edges a minimum of 100mm and stagger ends to a minimum of 300mm. Staple or nail edges together as required to prevent any displacement before and during concrete placement.



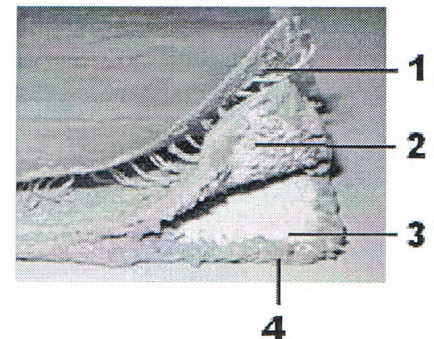
Structural concrete  
 CEMtopaste / CEMproof® Paste  
 CEMtobent®  
 Blinding concrete bed / concrete bedding  
 Natural soil

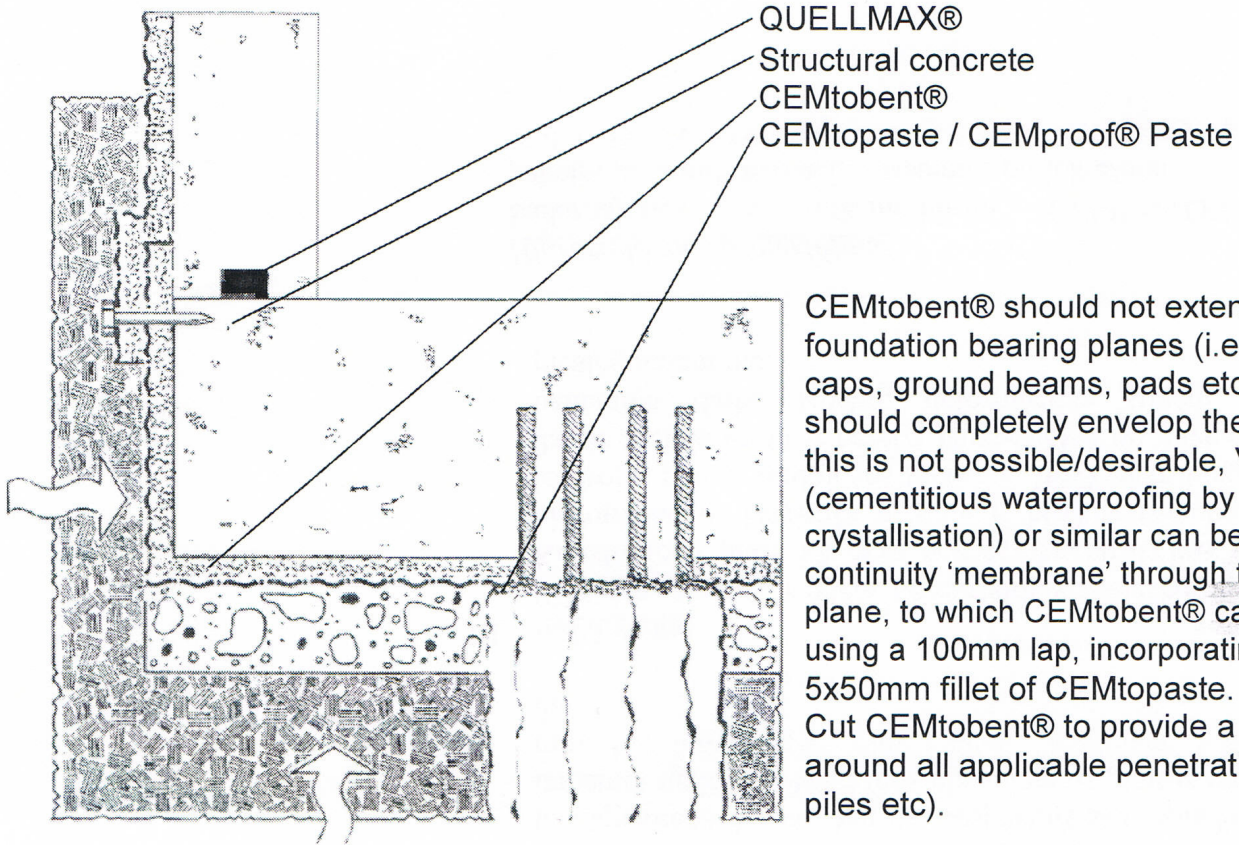
CEMtobent® has to be placed with the open side facing the construction concrete!

Detail all penetrations with a 40mm fillet of CEMtopaste, special bentonite mastic or CEMproof® Paste (Bentonite Powder & water) around the penetration on top of the CEMtobent®

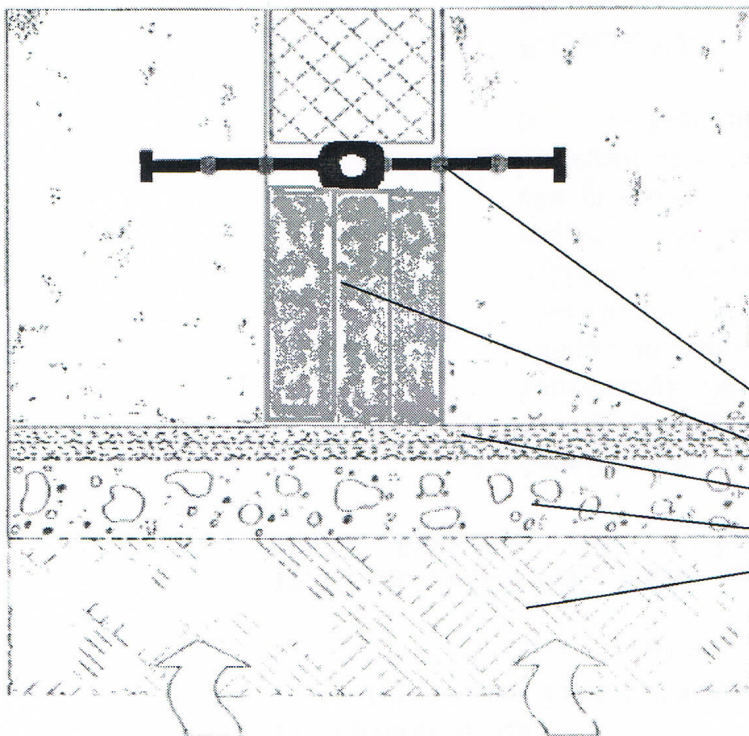
There is a rain-protection<sup>\*2)</sup> (bentonite treaded extra light weight non-woven / umbrella function) directly behind the open geotextile<sup>\*1)</sup>, to avoid unwanted wateringress into the CEMtobent® system. The bentonite powder is encapsulated in the honeycomb cells of the 3 dimensional PE-sheet<sup>\*3)</sup>. This PE-sheet is completely closed on the backside!

On the back side (closed side) there is another geotextile<sup>\*4)</sup> (CEMtobent DS) or a PE closed coated geotextile<sup>\*4)</sup> (CEMtobent CS)





CEMtobent® should not extend into foundation bearing planes (i.e. pile caps, ground beams, pads etc.,) but should completely envelop them. Where this is not possible/desirable, Vandex (cementitious waterproofing by crystallisation) or similar can be used as a continuity 'membrane' through the bearing plane, to which CEMtobent® can be sealed using a 100mm lap, incorporating a 5x50mm fillet of CEMtopaste. Cut CEMtobent® to provide a snug fit around all applicable penetrations (pipes, piles etc).

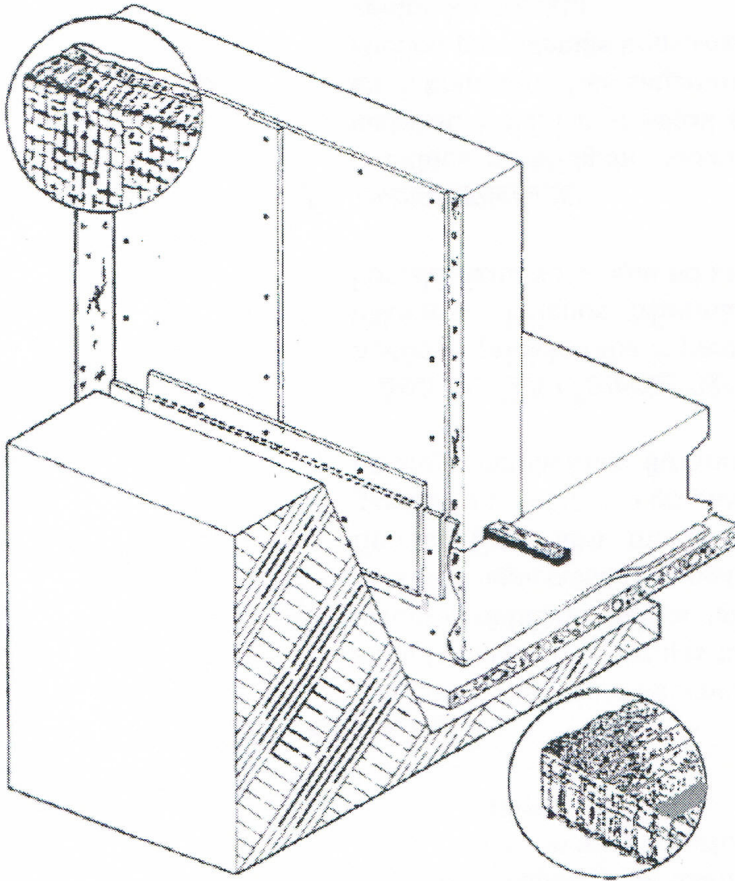


CEMtobent® is not designed to waterproof expansion joints. Expansion joints require a properly engineered expansion joint sealant product.

We suggest to use the CEMproof® PVC waterstops for expansion joint!

We suggest using CEMproof® bentonite panels as an additional security for the sealing of expansion joint.

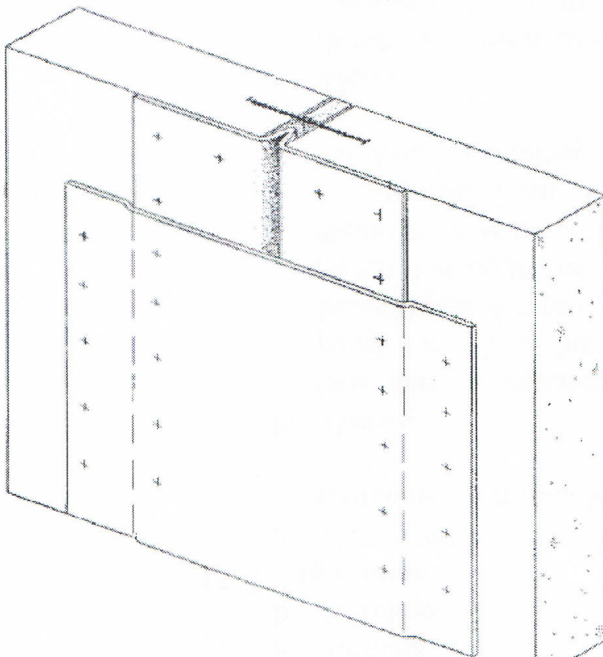
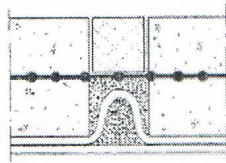
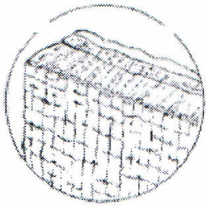
- PVC waterstop for expansion joint
- CEMproof® bentonite panels
- CEMtobent®
- Blinding concrete bed / concrete bedding
- Natural soil



CEMtobent® can be applied to backfilled walls in two ways:  
 mechanically fastening to cast concrete just prior to backfilling (post-applied),  
 or secondly (a not preferred alternate),  
 by utilizing the adhesion properties of  
 the CEMtobent® (preapplied).

Fix CEMtobent® by using approx. 1 up to 2  
 shot-fired 'softwasher' per square meter  
 vertical wall installation!

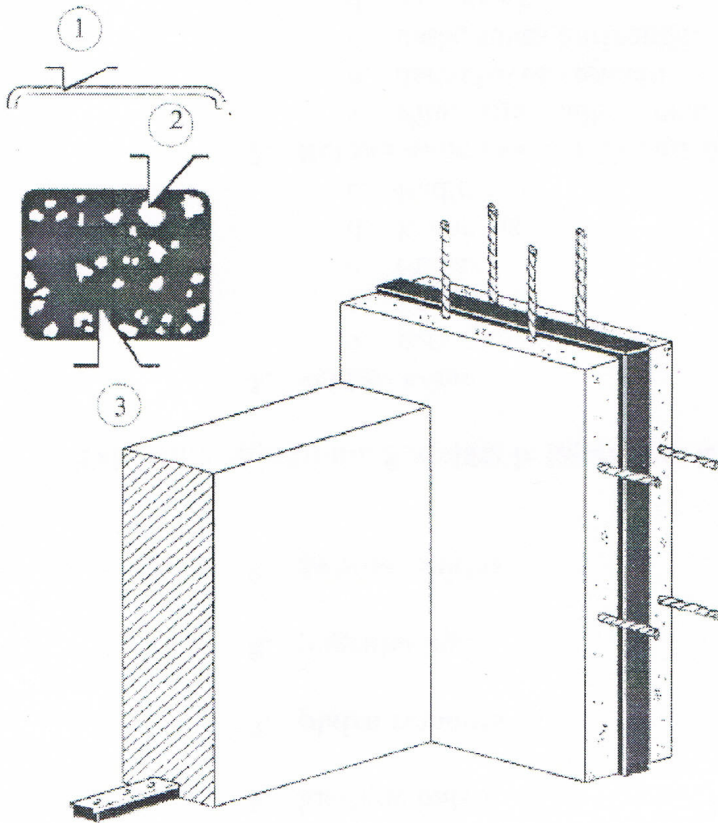
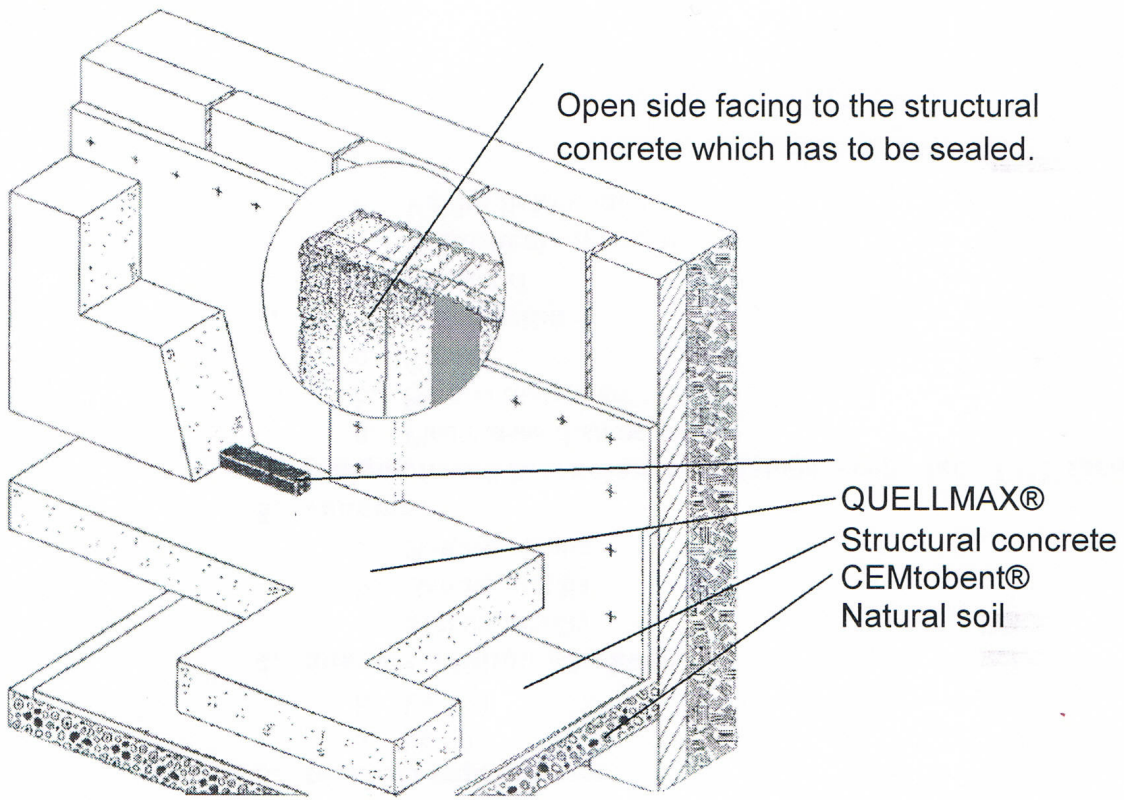
For Tunnel Construction please see  
 extra installation manual for tunnels



CEMtobent® has to be installed always  
 with the open side facing to the concrete  
 which has to be sealed!

Expansion joints have to be sealed with  
 an additional expansion waterstop!

Cold joints have to be sealed with  
 QUELLMAX® bentonite waterstop tape or  
 with PREDIMAX® injection hose system!



Quellmax® bentonite waterstop tape is an unique waterstop, to seal concrete construction joints up to 7 bar water-pressure (7bar = 70 m of water-pressure)