

INSTALLATION INSTRUCTIONS

for basement wall



Thank you!

Thank you for choosing the Pordrän system to protect your basement wall from moisture. The installation instructions you are currently reading will show you how best to install our system. These installation instructions should only be considered an aid, since reality often differs from a detail drawing. If you have any questions while carrying out the work, please feel free to contact us.

The Pordrän system includes a number of different products. You can see which products you will normally need on the page opposite. We recommend using P-marked products to ensure the best functionality and quality.



Dimensions table

Choose the correct strength depending on how deep underground the basement wall will extend (concerns clay soils):

Depth	P19 60 kPa	P25 78.5 kPa	P30 99 kPa	P35 110 kPa	P45 170 kPa	P55 200 kPa
0–2.5 m	Green	Green	Green	Green	Green	Green
2.5–3.0 m	Red	Green	Green	Green	Green	Green
3.0–3.5 m	Red	Red	Green	Green	Green	Green
3.5–4.0 m	Red	Red	Red	Green	Green	Green
4.0–5.5 m	Red	Red	Red	Red	Green	Green
5.5–6.0 m	Red	Red	Red	Red	Red	Green

In the event of deeper excavation work, contact support.

See more!



In these installation instructions you will find what are known as QR codes. If you scan them using your mobile phone or tablet, you will be able to watch a video of the work stage. To read QR codes you may need to download an app. Search for “QR” in your app store.

We recommend scanning this QR code to see all of our informative videos.

Contact us:

Tel.: +46 (0)8-607 32 60
Email: info@pordran.se
Website: www.pordran.se

Visiting address: Alfred Nobels Allé 105, SE-146 48 Tullinge

What you need



Pordrän panel. Available in 70 mm and 100 mm. Double up the panels to achieve more efficient heat insulation.



Cover strip. Available in the widths 70, 100, 140 and 200 mm depending on how thick a Pordrän layer you choose to install.



Insulation holder for attaching the Pordrän panel to the foundation wall.



Flange head rivet or nail plug for attaching the cover strip to the foundation wall.



Barbs – if you decide to install several layers of Pordrän panels, these should be used to secure layer number 2 to layer number 1.



Pordrän block, straight. Includes connector sleeve. Replaces drainpipe and macadam.



EP membrane. This is applied to the protruding base plate, if there is one, to prevent moisture absorption.



Pordrän block, corner. Includes connector sleeve and cover. Replaces drainpipe and macadam.



Silicone for achieving a seal between the cover strip and foundation wall.



Pordrän layer. To be suspended from the cover strip to overlap the geotextile coming up from the bottom.

Geotextile – as required



Needle-felted geotextile. Standard cloth. Must be at least class NG2.



Thermal geotextile. A stiffer cloth that is not as easily clogged. Must be at least 110 g/m².



Safety cloth. For use in difficult conditions where there is a lot of water or a steep upward slope. Must be P-marked.

1. Excavation



Start by exposing the foundation. Dig down to the lower edge of the base plate and out a bit from the building. Keep an eye on the excavation wall so that it does not collapse. Different soil types require different slopes to prevent collapse. When you get down to the lower edge of the base plate, you should dig outwards at around a 45-degree angle from the building. This will ensure that the drainpipe is positioned at the correct depth. If you are using a Pordrän block, see more under the section "Pordrän block".



2. Old waterproof layer

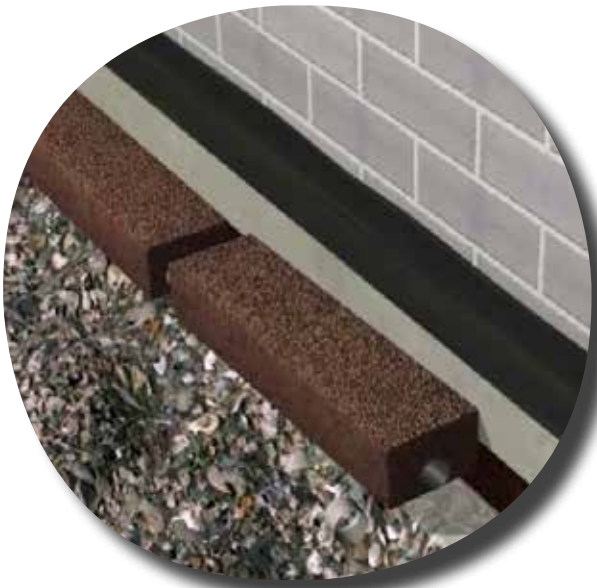


If an old waterproof layer or other product is already attached to the foundation wall, this should be removed to help the foundation wall concrete dry out. If it is an old waterproof layer, as much as possible should be removed, but in any case at least 50 per cent. The further down the foundation wall extends, the more important it is to remove the old waterproof layer. Here, of course, the amount of moisture in the building has a bearing on how much of the waterproof layer you remove. It is easiest to remove an old waterproof layer by blasting the foundation wall. Alternatively, cut grooves into the old waterproof layer. It is also possible to use other methods of removing the old waterproof layer.

Damage to the foundation wall must be repaired before you start installing Pordrän panels.



3a. Pordrän block



If you have decided to install a Pordrän block, this means that you will avoid having to use macadam. The only requirement is that the bottom of the excavation be fairly even. You will need to excavate a little further under the base plate to get the Pordrän block down to the requisite depth. Remember that you can use the Pordrän block down to a max. depth of 3 metres; in the event of deeper excavations, contact support. The Pordrän block is connected as usual to a drainage well. The Pordrän block is connected using an internal connector sleeve.

See detail drawings 1, 3, 5 and 7.

Remember to always arrange inspection options for the drainpipe. This means that you should have inspection wells so that you can check the drainage using e.g. a camera. Remember that different buildings require different numbers of inspection wells to cover the entire drainage system.

3b. Alternative to the Pordrän block



The drainpipe's invert level must be approx. 100 mm beneath the lower edge of the base plate or 100 mm beneath the lower edge of the drainage layers. The drainpipe should also be tilted correctly and connected to a drainage well. The drainpipe must be classed as BDR and be at least 110 mm. It is best to lay a layer of macadam, e.g. 8/16, before the drainpipe is positioned. Balance the drainpipe and then refill with type 8/16 macadam so that the macadam comes into contact with the Pordrän panel. If the base plate is protruding, the macadam must come up to the protruding base plate.

See detail drawings 2, 4, 6 and 8.

4. Geotextile



Start by laying the geotextile from the bottom of the excavation up the excavation slope before you start installing the Pordrän panel. The geotextile should start where the excavation wall meets the bottom of the excavation and should only in exceptional cases, e.g. in the event of a collapse or uneven bottom, be laid under the drainpipe. Only use approved geotextile. The geotextile should cover the entire Pordrän panel when you are done. Use the geotextile layer to overlap the geotextile coming up from the bottom of the excavation. Vertical connectors must overlap by at least 100 mm.



Remember to install the vertical panels in the right direction depending on the direction from which you are refilling.

5. Protruding base plate



Top the protruding base plate with concrete to create a slope from the building. This concrete slope is covered by an EP membrane that should extend approx. 100 mm up the foundation wall and approx. 20 mm down the vertical section of the base plate. Depending on the conditions, 2 layers of EP membrane may be required. The EP membrane is applied using a brush.

See detail drawings 6–8 for more information.



6. Pordrän panel



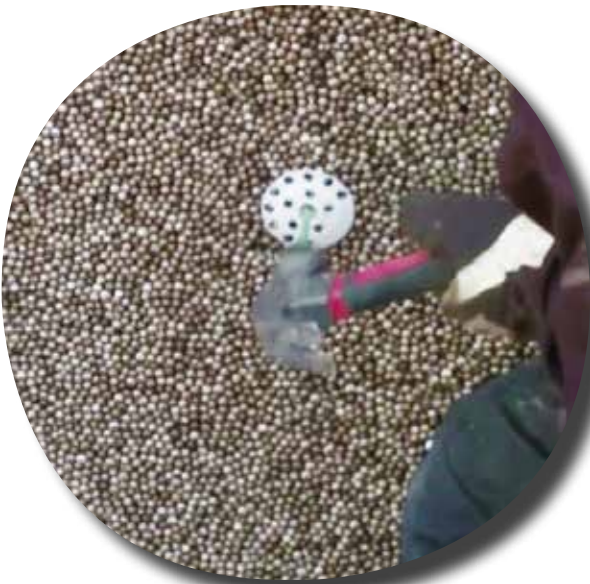
Fit the Pordrän panel against the foundation wall. The panels must sit close and cover the entire foundation wall from the lower edge of the base plate up to approx. 100 mm *beneath* final ground level.

Pordrän panels are easy to cut to size using a fine-toothed handsaw or similar.



Remember that foundation walls made of Leca or lightweight concrete must be washed before the Pordrän panel is installed.

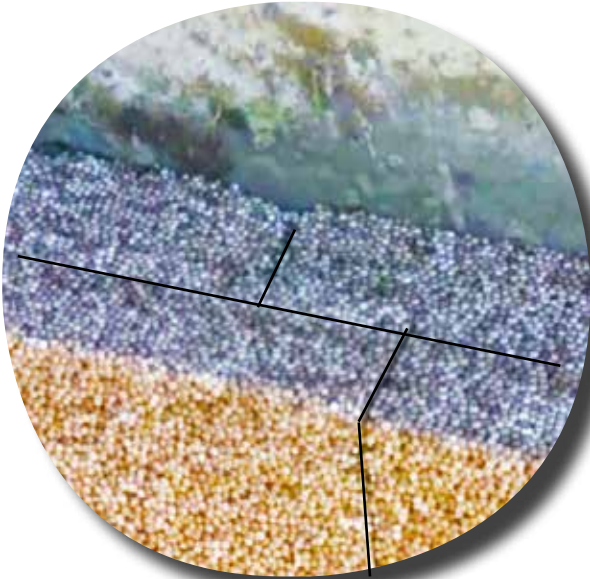
7a. Insulation holder



Attach the panels using an insulation holder. Use an 8 mm drill bit to insert the insulation holder. 1 insulation holder per panel is sufficient. It is also possible to glue the panels using a PL200 or PL600 adhesive (not solvent-based) or using tile adhesive. However, we recommend using an insulation holder.



7b. When installing double Pordrän panels



If you decided to install a double layer of Pordrän panels, attach the second layer to the first layer using two barbs per panel. Remember to overlap the edges so that you minimise thermal bridges.

See detail drawings 3–4 and 7–8 for more information.



8. Cover strip



Finish by securing the cover strip to the foundation wall. You should attach the cover strip to the geotextile layer, which should overlap the geotextile coming from the bottom of the excavation by approx. 300–500 mm. Apply silicone to the cover strip before drilling and attaching it using nail plugs. The c/c distance for the nail plugs varies somewhat depending on how uneven the foundation wall is, but it is never more than 150 mm and rarely less than 50 mm. The cover strip should be approx. 100 mm beneath final ground level.



The cover strip overlaps should be at least 100 mm.

9. Seal the cover strip



Apply silicone or similar between the foundation wall and the cover strip. This will ensure that no water is able to run down between the Pordrän panel and the foundation wall.



10. Refilling



Use the same soil for refilling, making sure that no larger stones (larger than 100 mm) end up against the panels. A dense soil type should be used on top, and you should make sure that there is a slope from the property. Try to make sure that the slope from the property results in a level difference of approx. 150 mm 3 metres away from the building. If this distance away from the building cannot be achieved, you should still aim for a 150 mm level difference. The soil must come to approx. 100 mm above the cover strip. If compaction does not occur when refilling is carried out, remember that the ground may take several years to settle.

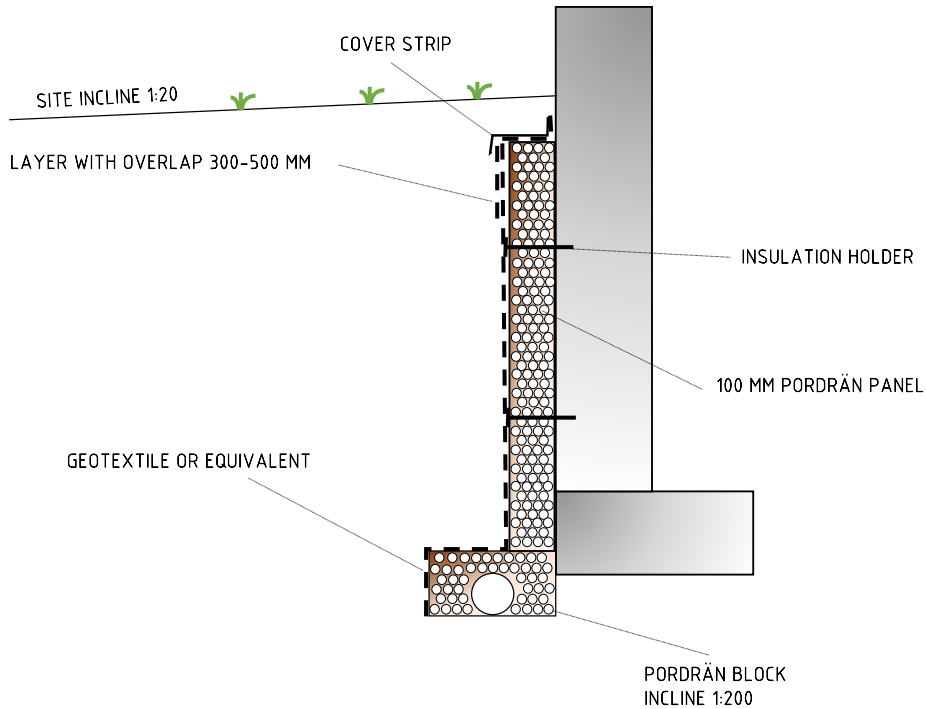
If the cover strip becomes visible after a while, more soil should be laid over the cover strip. The cover strip should always be underground.



Detail drawings

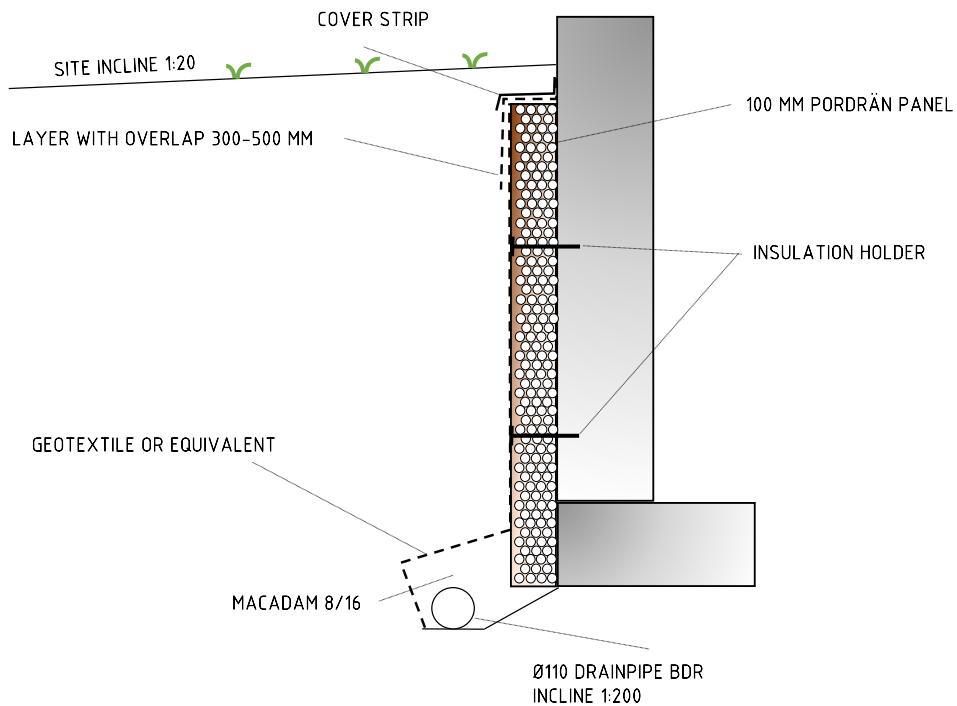
Detail drawing 1

100 mm Pordrän panel for straight foundation wall and Pordrän block



Detail drawing 2

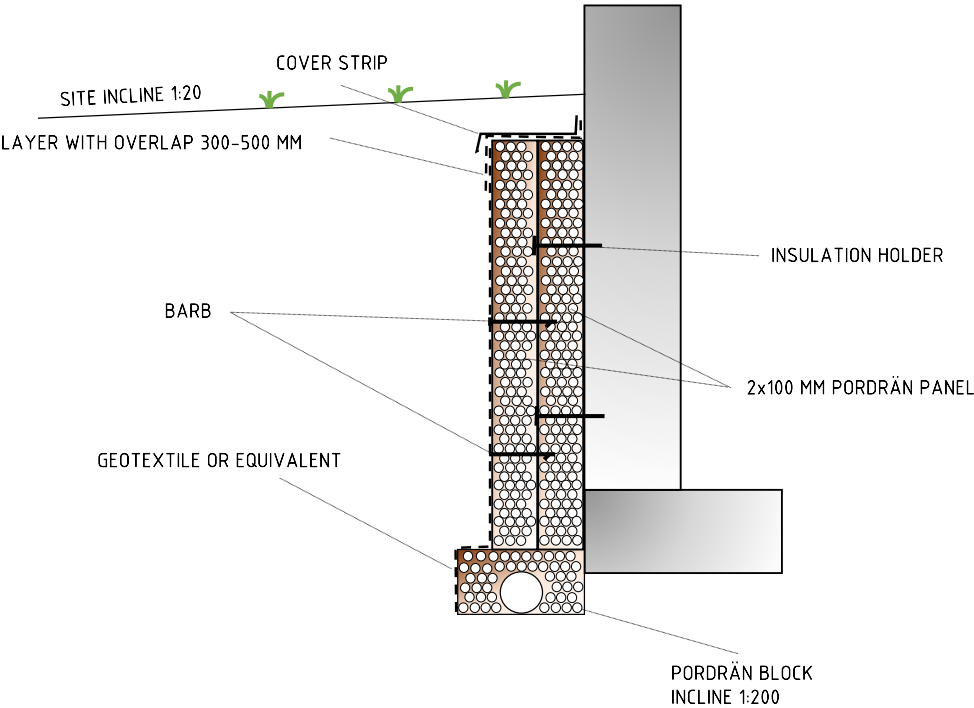
100 mm Pordrän panel for straight foundation wall and BDR drainpipe



Detail drawings

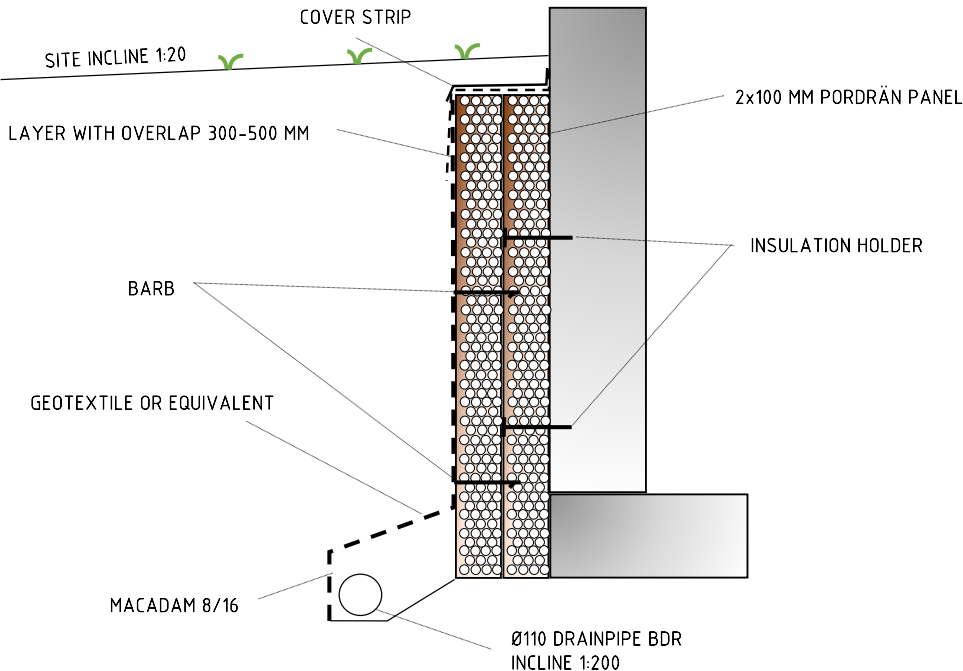
Detail drawing 3

200 mm Pordrän panel for straight foundation wall and Pordrän block



Detail drawing 4

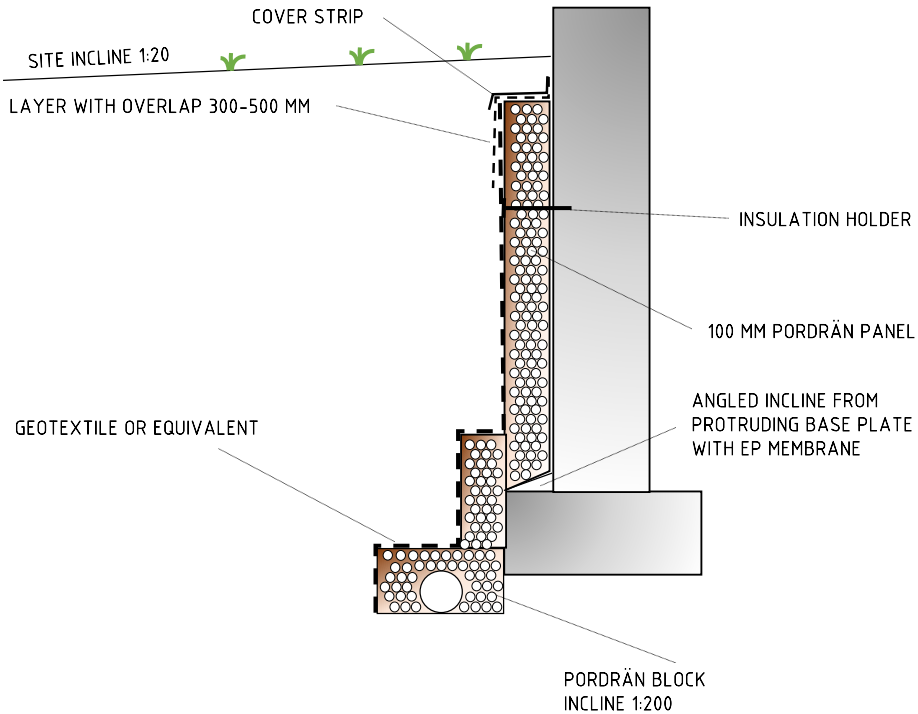
200 mm Pordrän panel for straight foundation wall and BDR drainpipe



Detail drawings

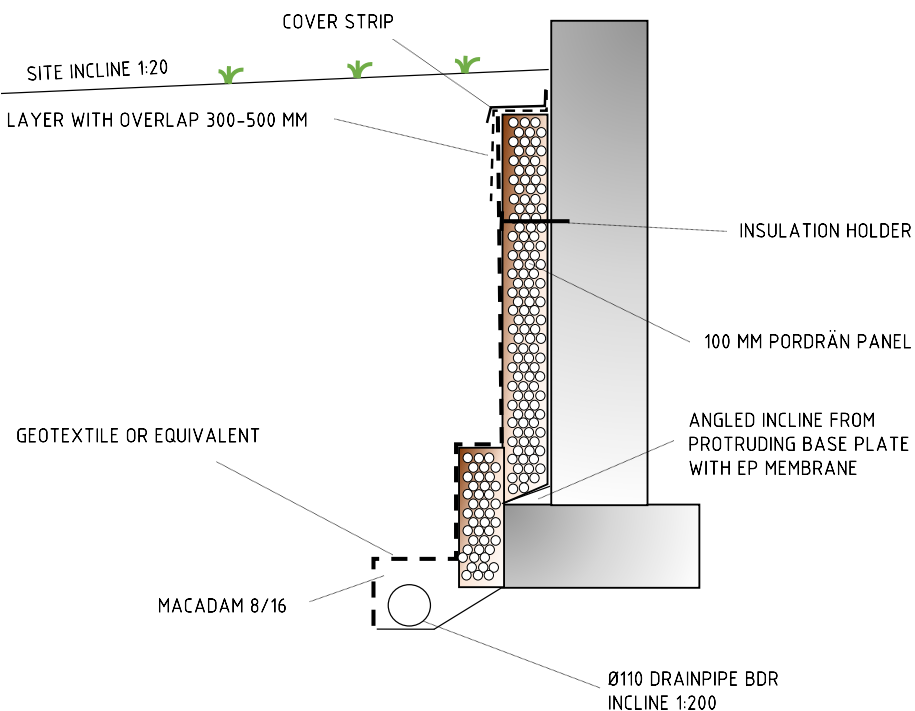
Detail drawing 5

100 mm Pordrän panel for protruding base plate and Pordrän block



Detail drawing 6

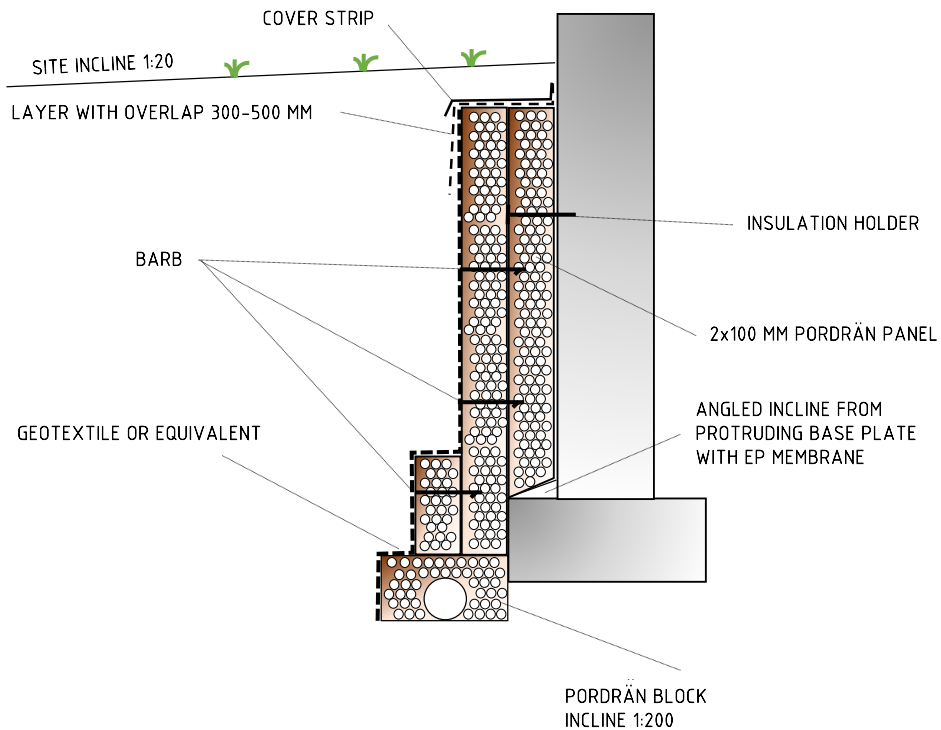
100 mm Pordrän panel for protruding base plate and BDR drainpipe



Detail drawings

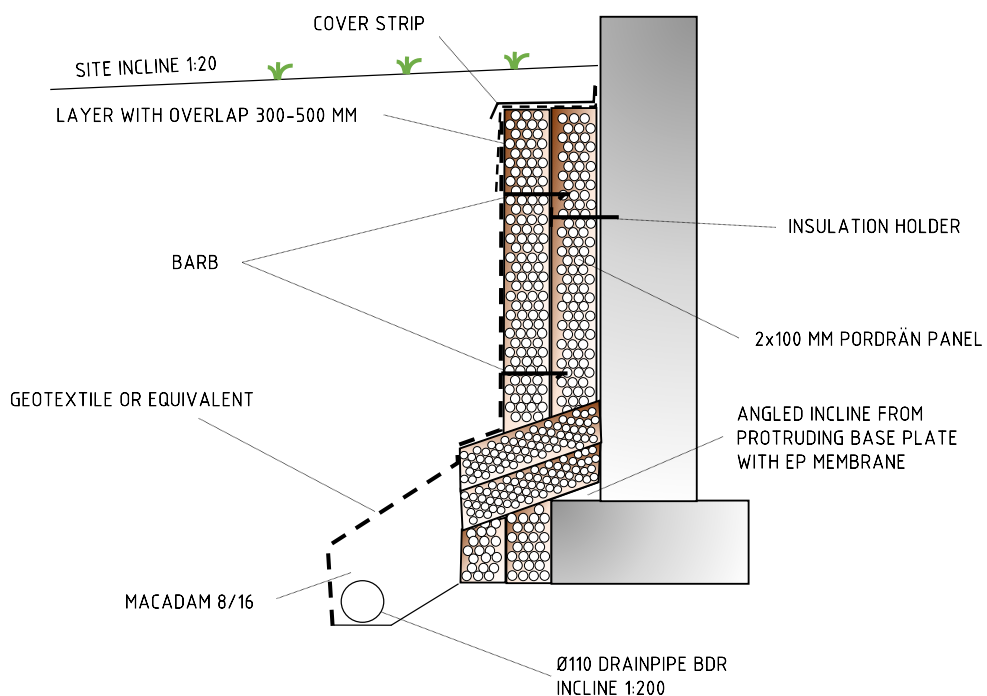
Detail drawing 7

200 mm Pordrän panel for protruding base plate and Pordrän block



Detail drawing 8

200 mm Pordrän panel for protruding base plate and BDR drainpipe



Checklist

Use this checklist to make sure that you remember all the steps. Then keep it with the documents for the property. We suggest taking photos of the steps and using these photos alongside the steps in the checklist. The numbering in the checklist refers to the steps in the installation instructions.

No.	Step	Completed	Comment
1	Excavation to the requisite depth		
2	Old waterproof layer sufficiently removed		
3a	Pordrän block is installed with correct slope and depth		
3b	Drainpipe is of class BDR and installed with correct slope and depth		
4	Geotextile is of the correct quality and any overlaps have been performed correctly		
5	There is a protruding base plate and this has been topped with concrete and EP membrane		
6	The Pordrän panel is fitted to foundation wall without gaps in between, and covers the whole foundation wall		
7a	The Pordrän panel is secured using necessary materials		
7b	Double-layer Pordrän panels have been installed with edges overlapped		
8	The cover strip has been fitted with a geotextile layer and secured with max. c/c 150 mm.		
9	Silicone or similar has been applied between the cover strip and foundation wall		
10	Refilling has taken place with dense soil and no stones bigger than 100 mm against the panel. The soil should cover the cover strip up to a height of approx. 100 mm.		

Performed by	Start and end date

Property name	Year of construction

Property street address, postcode and town



Tel.: +46 (0)8-607 32 60 – Email: info@pordran.se – Website: www.pordran.se