



INSTALLATION GUIDE
FOUNDATION

DRAINAGE BOARD

EDITION: 05-05-2021

RESISTO[®]

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BUILDING PRODUCTS

Roofing Waterproofing Wall Systems Insulation

INSTALLATION GUIDE DRAINAGE BOARD

What will be required for the installation of the product:



RESISTO DRAINAGE BOARD

- Plan one roll for every 62 lin. ft (19 lin. m) of foundation (allows overlap of rolls).
- The membrane should be overlapped horizontally by 6 in (15 cm) for a deeper foundation wall.

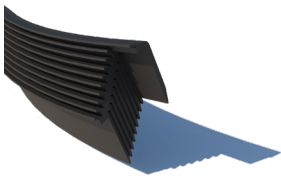


Installers

- Two installers are recommended.



Utility knife



RESISTO MOULDING

- The moulding is 78 in (2 m) long.
- Five pieces per drainage board are typically used.



Tape measure and chalk line reel



SPEEDCLIPS and PLUGS

- 65 SPEEDCLIPS are used per roll of drainage board or a bag of PLUGS for every three rolls.



Fastening tool

- Use a nail gun for blocks and cured concrete.
- For insulated concrete forms (ICF) and treated wood foundations, use a cordless drill or a screwdriver.



Caulking

- At least two tubes are required per roll.
- For concrete or wood foundations, use butyl rubber or asphalt-based roofing cement.
- For insulated concrete forms (ICF), use foam panel adhesive.
- Do not use silicone, latex, or polyurethane.



Fasteners

- For concrete, use 1 ¼ in (32 mm) concrete nails.
- For insulated concrete forms (ICF) and treated wood foundations, use 1 ⅝ in (41 mm) corrosion-resistant deck screws.
- SPEEDCLIPS: Use one fastener per clip.
- RESISTO MOULDING: Use 10 fasteners per moulding.

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PREPARATION

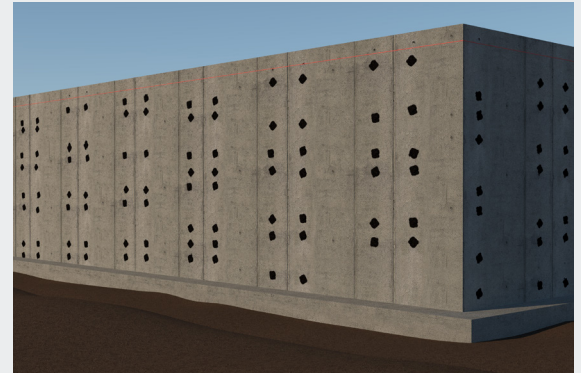
- 1 Remove form ties and rough edges, then clear stones and debris from the footing. Seal tie rod holes with mastic. No surface preparation is required on insulated concrete form walls. Concrete block walls should be covered with plaster. Use a chalk line to identify the level of the finished grade around the perimeter of the foundation walls.

CHALKING AND CAULKING

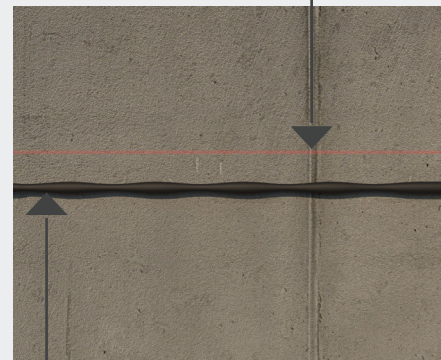
- 2 When using **PLUGS** or **SPEEDCLIP** fasteners without **RESISTO MOULDINGS**:
Stretch a thick bead of caulk 1 in (25 mm) below the chalk line between the smooth strip of the drainage board and the wall to prevent dirt from passing under the membrane and clogging the air gap.
Caulking is not necessary if you are using **SPEEDCLIPS** in combination with **RESISTO MOULDINGS**.

UNROLLING

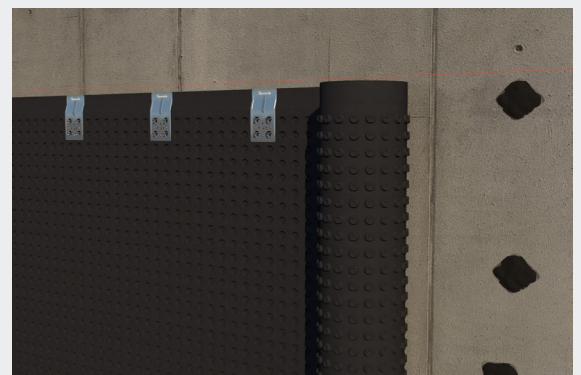
- 3 Rest the drainage board vertically on the footing to facilitate its unwinding. Unroll the board along the foundation from left to right, while making sure to orient the dimpled face to the wall with the smooth strip upwards while following the chalk line. Hold the smooth strip against the wall and secure it with **SPEEDCLIPS**.
 - The drainage board must cover the foundation walls from footing to finished grade.
 - If the height of the drainage board allows it, the membrane can be folded at the bottom of the wall and brought over the footing to cover it.
 - Excess membrane can also be folded back and cut along the edge of the footing if needed.



Chalk line at finished grade level.



If you are not using **SPEEDCLIPS** and the **RESISTO MOULDING**, caulk between the smooth strip of the drainage board and the wall.



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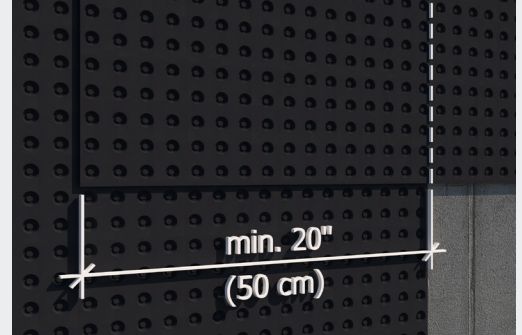
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MAKING JOINTS

4 Overlap the vertical joints by at least 20 in (50 cm). Make sure to securely engage the dimples together. If water were to get into the joints, it would flow down to the footing drain before reaching the foundation wall.

If required, horizontal joints should overlap by at least 6 in (15 cm). Cut off the smooth strip and remove it from the lower section. The top section must overlap the lower section.



FASTENING

5 Fasten with SPEEDCLIPS 12 in (30 cm) apart along the top of the drainage board. Firmly engage the fasteners with the top two rows of dimples on the drainage board. Drive a nail (or screw in the case of insulated concrete forms) into the small central hole between the dimples. The smooth strip should be held firmly against the wall.

It is also possible to secure the membrane using RESISTO PLUGS and nails driven into the second and third rows of dimples spaced 8 to 12 in (20 to 30 cm). Secure the smooth strip with a RESISTO MOULDING at the top or washers attached every 8 to 12 in (20 to 30 cm). When using washers, be sure to caulk the top of the panel with a compatible sealant such as RESISTO ELASTOMERIC SEALANT, as the RESISTO MOULDING cannot be used.

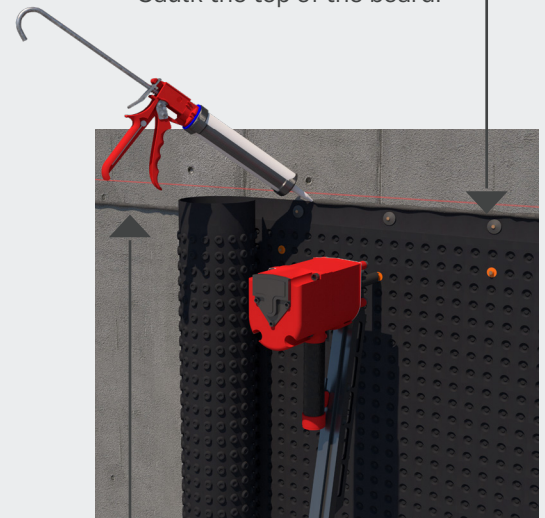
In clayey soils, RESISTO does not recommend using washers.

VERY SOFT CLAYEY SOILS

- For drainage boards over 6 ft 9 in (2.06 m) high, install a second row of fasteners spaced 24 in (60 cm) halfway up the wall. Backfill carefully in three or more passes.
- If you are not using SPEEDCLIPS, you must use additional PLUGS in the fifth row of dimples at the top of the panel.



Caulk the top of the board.



Apply a bead of caulk between the smooth strip of the drainage board and the wall.

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RESISTO MOULDINGS

6 RESISTO MOULDINGS seal open areas of the membrane where dirt can penetrate and clog the air gap. Typically, these areas are found at the top and exposed lateral sides of the drainage board. No caulking is necessary at the top if the RESISTO MOULDING is used with SPEEDCLIPS, as the RESISTO MOULDING forms a continuous seal along the top of the membrane.

DISCLAIMER



If waterproofing is required, use a RESISTO self-adhesive waterproofing membrane instead of the drainage board.

For more details, visit www.resisto.ca.

SPECIAL APPLICATIONS

HIGH WALLS

Overlap the drainage board horizontally when the distance between the footing and the finished grade exceeds the height of the drainage board. Cut a section of drainage board into strips and remove the upper smooth strip. Install along the bottom with fasteners. Install the full height of the second board while overlapping the first strip by at least 6 in (15 cm).

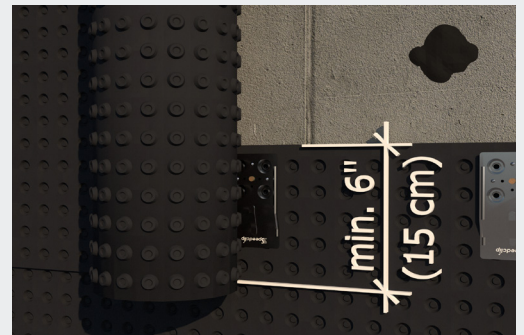
WINDOWS

Trim the drainage board flush with the sides of the window and 3 in (8 cm) below the window opening. If using SPEEDCLIP fasteners, use the piece that was cut around the window to seal the open horizontal cut. Engage the dimples together and secure with SPEEDCLIP fasteners.

If using RESISTO PLUGS, continue the nailing pattern of the membrane under the window opening and seal the open horizontal cut with a RESISTO MOULDING.

WINDOW WELLS

Window wells must be installed over the drainage board. Trim away any lateral portion of the board exposed inside the well, then caulk the vertical joint.



Caulk the exposed vertical joint.



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GROUND-LEVEL CHANGES

First, install the drainage board on the highest level. Cut the membrane at an angle to the lowest planned finished ground level, then cut the board horizontally on a 20 in (50 cm) length. Then install the second drainage board on the lowest level and securely engage the dimples together while ensuring a 20 in (50 cm) overlap at the joint.

Secure the drainage boards with SPEEDCLIPS or PLUGS. Seal the top end that was cut at an angle with caulk. Seal the upper ends of the membranes using RESISTO MOULDINGS.

Complete the installation by cutting the excess material from the drainage boards along the footing as required.

FOOTING DRAINAGE

It is essential to install a functional footing drain with all foundation waterproofing systems. Follow the building code of your area.

BACKFILLING

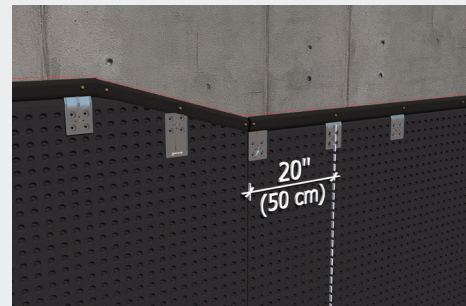
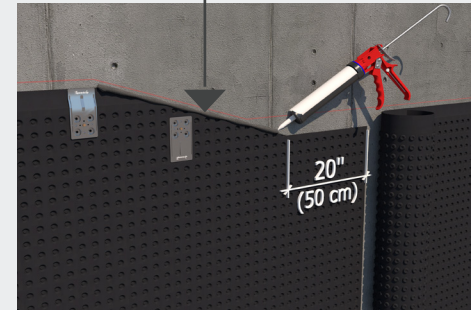
Place stone over the footing drain and over the footing at the base of the drainage board, in accordance with the building code of your area. Backfill carefully. Do not allow machinery, large rocks, or frozen clumps to hit the drainage board. Make two or three backfill passes. Compacting each backfill pass subsequently helps reduce excessive settling later.

INSULATION

The air gap between the drainage board and the foundation wall does not alter the R-value of the insulation.

- Rigid insulation boards are installed over the drainage board.
- Vertical insulation panels must rest on the footing.
- If you are installing drainage boards over spray polyurethane foam, use SPEEDCLIPS and concrete nails long enough to penetrate at least 1 in (2.5 cm) into the concrete.

Caulk the top end cut at an angle.



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DUCT PENETRATION

Pipes must be sealed to the foundation with hydraulic cement before the membrane can be installed.

Split the drainage board vertically either up or down from the pipe and cut the board around the perimeter of the pipe.

Caulk around the pipe and both sides of the notch. Place a 24 in (60 cm) piece of drainage board over the notch, engage the dimples together, and secure it with SPEEDCLIPS or PLUGS.

TEAR REPAIR

Apply caulk around the tear. Place a 24 in (60 cm) piece of drainage board over the tear, engage the dimples together, and secure with SPEEDCLIPS or PLUGS.

CORNERS

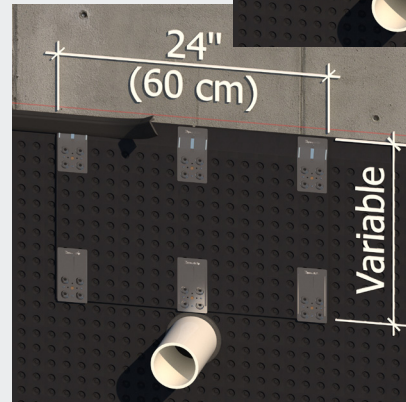
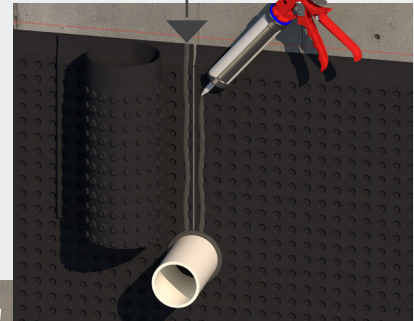
Fold and crease the drainage board to ensure a good fit

INSULATED CONCRETE FORMS (ICF)

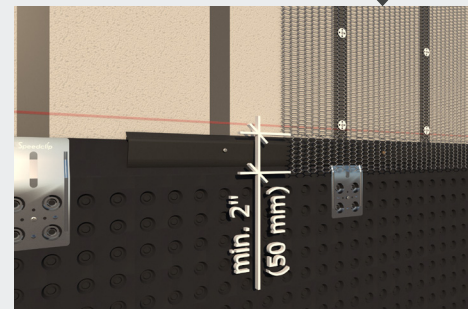
The drainage board easily installs on oxidized, wet or dirty concrete blocks, can cover ¼ in (6 mm) openings, and has no temperature or weather restrictions.

- The caulking must be compatible with the foam insulation of the insulated concrete forms.
- Instead of using concrete nails, screw into the insulating concrete form web or other dedicated fastening points with corrosion-resistant screws.
- With SPEEDCLIPS, use the mounting hole that best aligns with the web or other dedicated fastening points of the insulated concrete form.
- To make the transition from finished grade to cladding, screw a galvanized metal lath into the insulated concrete formwork. The metal lath covers the exposed foam and must overlap the drainage board by at least 2 in (50 mm).
- Apply a mortar mix typically used on foundations of this type.

Caulk around the edge of the pipe and both sides of the notch.



Galvanized metal lath.



Note: Use 1 5/8 in (41 mm) corrosion resistant screws.

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INSTALLATION UNDER CONCRETE SLAB

The drainage board can act as a vapour barrier when properly applied under the concrete slab.

Install the drainage board on the backfill or a mud slab, making sure to orient the dimpled face down.

Joints must be sealed with a butyl rubber caulk (caulk used for roofs and gutters).

Air and vapour barrier tape should be used to hold joints together until concrete is poured.

On the walls, fold and crease the drainage board to ensure a good fit. Curl it upward so that it extends beyond the intended finished level of floor. It can be trimmed flush with the floor later, if desired.

The reinforcing mesh and concrete should be laid over the membrane following the normal procedure.

- For heated floors, rigid insulation boards should be positioned over the membrane before concrete is poured.
- The drainage board is sturdy enough to support pedestrian traffic. However, a temporary walkway must be installed if concrete transport takes place over the drainage board.

