



INSTALLATION GUIDE
FOUNDATION

**DRAINAGE
BOARD**

EDITION: 09-15-2023

RESISTO[®]

RESISTO®

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 (to allow overlap of rolls).
- The membrane should be overlapped horizontally by 6 in (15 cm) for a deeper foundation wall.

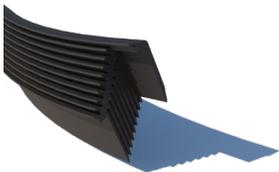


Installers

- Two installers are recommended.



Utility knife



RESISTO MOULDING

- 78 in (2 m) long.
- Ten pieces per drainage board are typically used.



Tape measure and chalk line reel



METAL FASTENERS and PLUGS

- 65 METAL FASTENERS per roll of drainage board.

OR

- 1 bag of PLUGS for every three rolls.



Fastening tool

- Use a nail gun for blocks and cured concrete.
- For 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.
- Do not use silicone, latex, or polyurethane.



Fasteners

- For concrete, use 1¼ in (32 mm) concrete nails.
- For treated wood foundations, use 1½ in (41 mm) corrosion-resistant deck screws.

METAL FASTENERS: Use one fastener per clip.

RESISTO MOULDING: Use 10 fasteners per molding.

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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. Concrete block walls should be covered with plaster.

To ensure optimal protection before installing the drainage board, RESISTO recommends the application of the RESISTO FOUNDATION COATING to protect foundations from moisture.

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 METAL 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 debris from passing under the membrane and clogging the air gap.

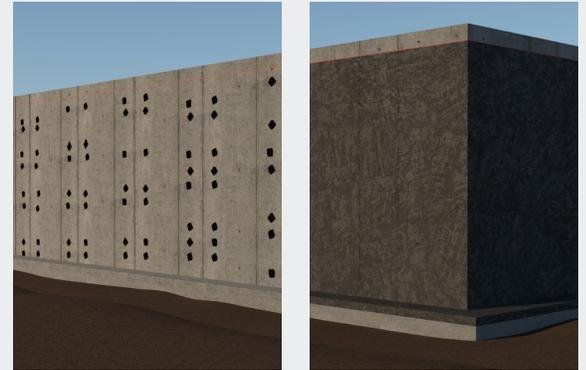
Caulking is not necessary if you are using METAL FASTENERS combined with RESISTO MOULDINGS.

UNROLLING

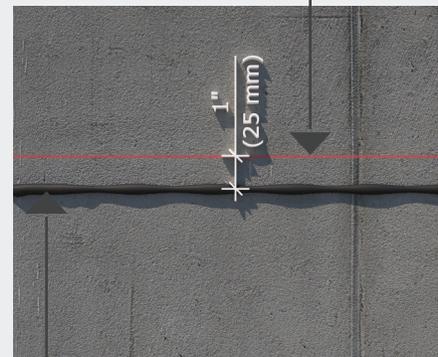
3

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 towards the wall with the smooth strip upwards while following the chalk line. Hold the smooth strip against the wall and secure it with METAL FASTENERS.

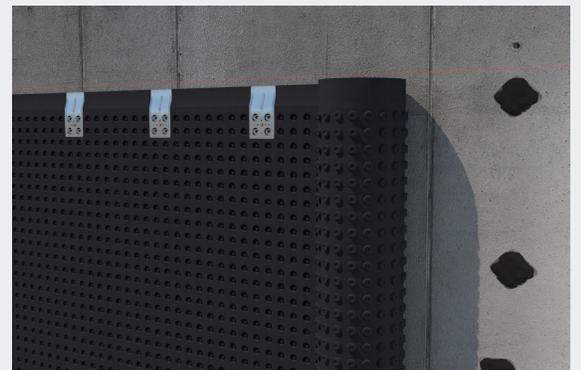
- The drainage board must cover the foundation wall from footing to finished grade.
- If the height of the drainage board allows it, the membrane can be folded at the bottom of the wall and brought over the footing to cover it.
- Excess membrane can also be folded back and cut along the edge of the footing if desired.



Chalk line at finished grade level.



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



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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

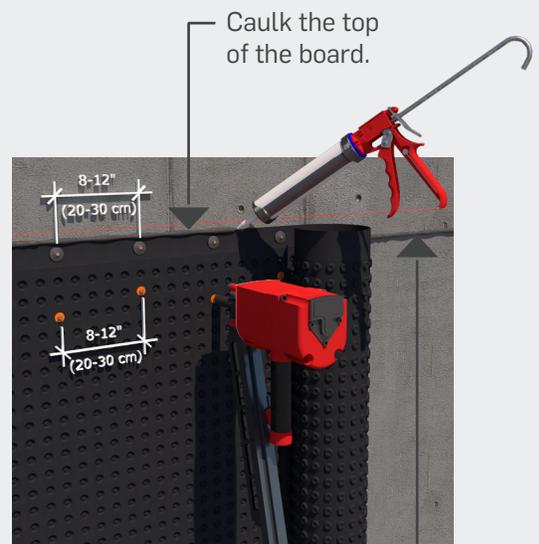
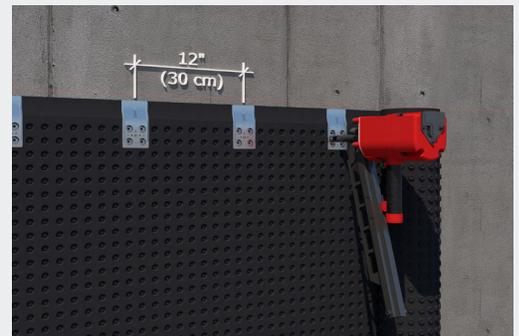
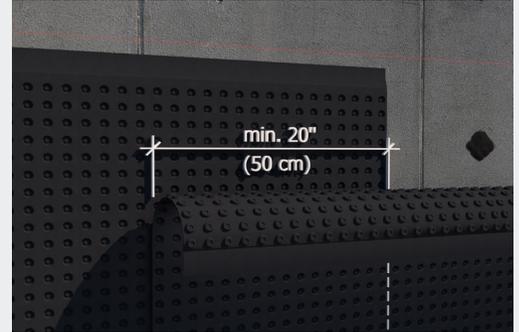
5 Fasten with **METAL FASTENERS** 12 in (30 cm) apart along the top of the drainage board. Firmly engage the fasteners with the top two rows of dimples on the drainage board. Drive a nail into the small central hole between the dimples. The smooth strip should be held firmly against the wall.

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) apart. Secure the smooth strip with **RESISTO MOULDINGS** on the top or washers attached every 8 to 12 in (20 to 30 cm). When using washers, secure the top of the board with a compatible sealant such as **RESISTO ELASTOMERIC SEALANT**, as **RESISTO MOULDING** cannot be used.

RESISTO does not recommend the use of washers in the presence of clay soil.

VERY SOFT CLAYEY SOILS

- For drainage boards higher than 6 ft 9 in (2.06 m), install a second row of fasteners spaced 24 in (60 cm) apart at mid-height along the wall. Backfill carefully in three or more passes.
- If you are not using **METAL FASTENERS**, use additional **PLUGS** in the fifth row of dimples at 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 METAL FASTENERS, 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).

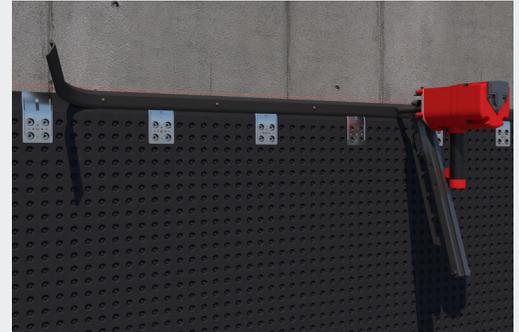
WINDOWS

Trim the drainage board around the perimeter of the window while ensuring a 3 in (75 mm) clearance between the board and the window. If using METAL FASTENERS, use the piece that was previously cut around the window to seal the open horizontal cut. Engage the dimples together and secure with METAL FASTENERS.

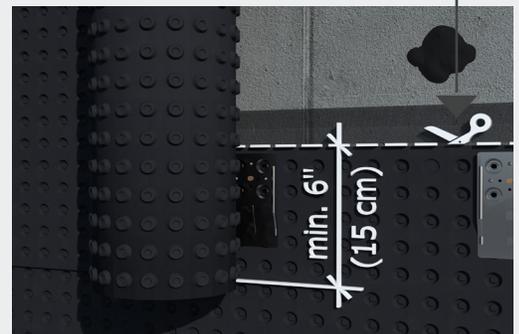
If using RESISTO PLUGS, continue the nailing pattern of the membrane under the window opening and seal the open horizontal cut with a RESISTO MOULDING.

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.



Remove the upper strip.



Caulk exposed vertical joints.



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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. The product has been classified as Type 2 for use in vertical applications in depths up to 12 ft (3.7 m) below grade.

Secure the drainage boards with **METAL FASTENERS** 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 if 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

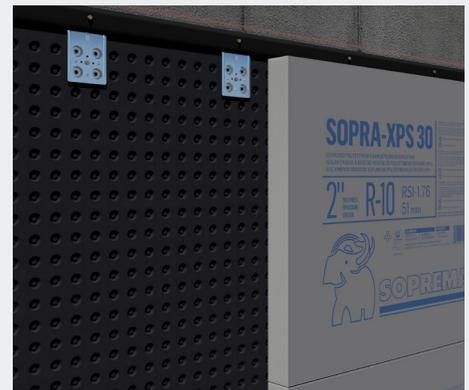
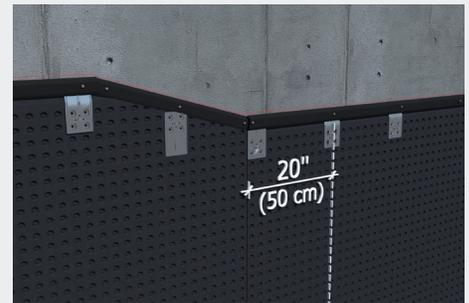
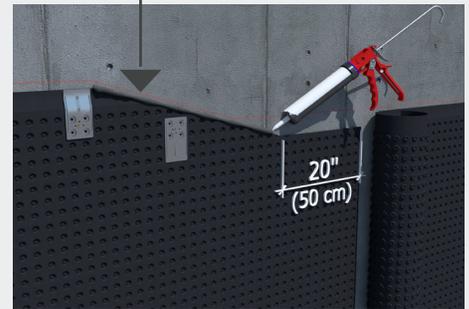
Place stone over the footing drain and over the footing at the base of the drainage board, in accordance with the building code of your area. Backfill carefully. Do not allow machinery, large rocks, or frozen clumps to hit the drainage boards. Make two or three backfill passes. Compacting each backfill pass subsequently helps reduce excessive settling later. The product must be protected from exposure to ultraviolet (UV) light (sunlight) within a maximum of six months of installation.

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 boards.
- Vertical insulation boards must rest on the footing.
- If you are installing drainage boards over sprayed polyurethane foam, use **METAL FASTENERS** 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 METAL FASTENERS 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 METAL FASTENERS or PLUGS.

CORNERS

Fold and crease the drainage board to ensure a good fit.

INSTALLATION UNDER CONCRETE SLAB

The drainage board can act as a vapor 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).

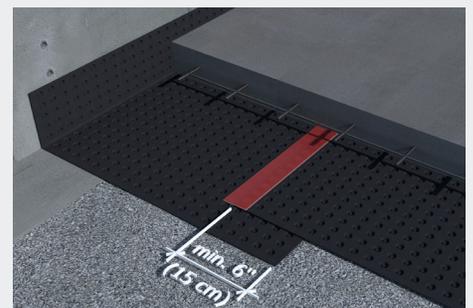
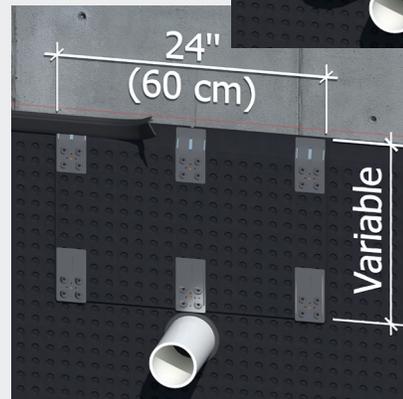
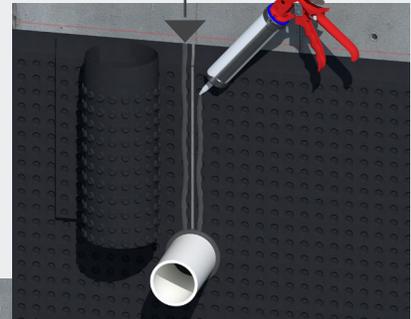
Air and vapor barrier tape should be used to hold joints together until concrete is poured.

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.

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



INSTALLATION GUIDE
FLOOR UNDERLAYMENT

**DRAINAGE
BOARD**

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INSTALLATION GUIDE DRAINAGE BOARD

RESISTO DRAINAGE BOARD can transform a cold, damp room into a dry, warm and comfortable living space. It's a unique underlay solution that protects laminates, hardwood floors and carpets from moisture, and adds comfort underfoot.

Virtually all basements have moisture problems. That's because moisture is continuously released into homes through the concrete beneath the floor covering. RESISTO DRAINAGE BOARDS create a moisture-proof barrier and air gap between the floor and concrete, protecting the floor covering while allowing the concrete to breathe and the moisture to vent. As a result, the finished floor stays dry and warm, without any build-up of mold, mildew or odors that affect the floor covering's lifespan and indoor air quality.

In homes, laminate flooring and its underpad can be placed directly over the drainage board as a floating floor. For other floor finishes, plywood or OSB sheets (7/16" or 11 mm minimum thickness) are laid as a secured subfloor over the drainage board and fastened to the concrete floor with concrete screws or masonry nails.

The RESISTO DRAINAGE BOARD is suitable for all types of flooring carpet, laminate, hardwood or vinyl, and offers a load-bearing capacity of 6,000 lb/ft². It is even compatible with underfloor heating systems.

Materials required for product installation:



Installer

1 installer is recommended.



RESISTO DRAINAGE BOARD

Allow 39 ft² (3.66 m²) to be deducted from each roll to account for overlaps during the installation.



Vapor-barrier adhesive tape

Drainage board compatible caulk or insulation board adhesive may substitute tape to seal overlaps between boards.



Utility knife



Fasteners

If you are covering the membrane with plywood or oriented strand board (OSB), use concrete screws or masonry nails to secure everything to the concrete floor.

Hint

For masonry nails, drill a hole the same depth and diameter as the nail, insert wire plumber's solder, and drive the nail beside the solder at least 1 in (2.5 cm) into the concrete.

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PREPARATION

- 1 Remove existing floor covering. Ensure the concrete is clear of debris. Level low areas with floor leveling compound if required.

UNROLLING

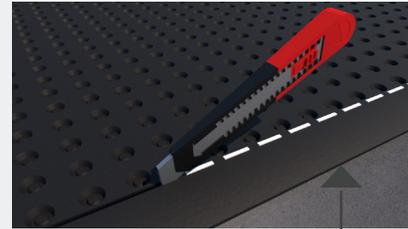
- 2 Roll out the first strip of membrane, dimples facing down, flat tab away from the wall. Only cut the flat tab off the first strip previously rolled out.
Reverse roll the membrane if it curls excessively.
Install laminate flooring and its underpad over each strip as it is rolled out and cut to length.

OVERLAPPING

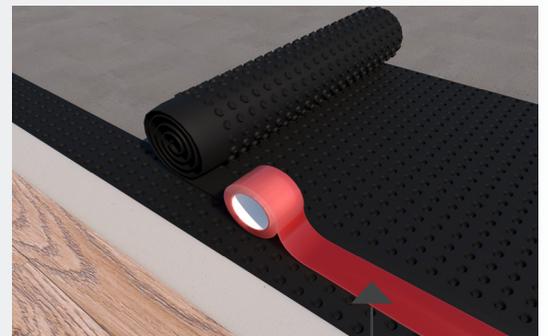
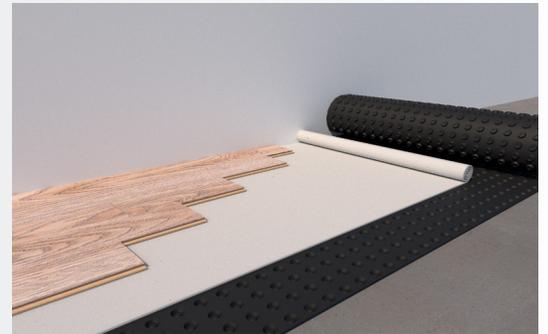
- 3 Unroll the next section with the flat tab overlapping the first section and cut to length.
Seal the overlap with vapor-barrier adhesive tape.
An alternative method consists of using a compatible caulk or foam panel adhesive between the smooth strip and the first length of membrane.

INSTALLING A SUBFLOOR (if required)

- 4 For floor finishes other than laminate, cover the membrane with plywood or OSB sheets (minimum 7/16 in or 11 mm).
Fasten through the subfloor and the drainage board 1 in (25mm) into the concrete where there is vertical movement. 4' (122 cm) joints between adjacent 4' x 8' (122 cm x 244 cm) sheets should be staggered. Leave a 1/4 in (6 mm) clearance around the perimeter of the subfloor to allow for expansion.
Non-load-bearing walls may now be framed on the subfloor.



Flat tab.



Seal the overlap with vapor-barrier adhesive tape.



INSTALLING THE FLOOR COVERING

5

Follow the floor manufacturer's installation recommendations. Additional instructions specific to the RESISTO DRAINAGE BOARD are as follows:

HARDWOOD

If the flooring is to be nailed down, use 3/4 in (19 mm) OSB or plywood and short nails, or two layers of subflooring (totaling 1 in [25mm] or more) to avoid puncturing the membrane.

LAMINATE

Laminate flooring and its underpad may be installed directly over the membrane. The concrete must be level. Landscape fabric may be placed on the concrete to improve sound characteristics if the concrete is slightly uneven. For the installation of the laminate flooring, follow the manufacturer's instructions.

CARPET

Install over a fixed sub-floor of at least 7/16 in (11 mm).

VINYL

Glue and staple 1/4 in (6 mm) underlay (as recommended by the flooring manufacturer) over the secured subfloor. Stagger the joints between the underlay and the subfloor.

WARNING



- Installation instructions are to be used as a guide only.
- None of these recommendations are to be interpreted as superseding or replacing any installation recommendations of the flooring manufacturer.
- No warranty on the performance of the floor covering is given or implied.

