

DAMPPROOFING & WATERPROOFING

There are various products and methods available to protect the exterior of your new foundation. Conventional cribbing uses a tar-based mixture, but this tar would eat away at the Styrofoam, so other products and practices are utilized in ICF applications.

1. PEEL AND STICK MEMBRANE

We recommend a “peel-and-stick” waterproofing membrane (Colphene or NUDURA Peel and Stick). The membrane is applied vertically to the wall from grade level down to and overlapping the top of the footing.

NOTE: Membrane should be installed within one week prior to backfill being placed. Should you choose to use one of the many other types of waterproofing available be sure to follow the manufacturer’s recommended installation procedures. Extreme temperatures (hot or cold) may require different products, and/or installation techniques to be utilized.

STEP 1: Prep the wall and footing area to be covered by removing dirt and debris from wall and footing. On bare concrete surfaces a primer may be required.

STEP 2: Snap chalk lines for the “expected finished grade” line.

STEP 3: Measure the height from expected grade line to footing. Add enough length to cover and wrap slightly down the top of the footing and cut pieces of membrane to length. Also cut smaller 4” - 6” (102mm - 152mm) pieces to be applied as “corner caps”. This will provide double ply protection in the corners.

STEP 4: Apply the “corner cap” pieces on each corner first.

STEP 5: Starting at a corner, line up the membrane so it is hanging vertically (using the tab lines on the ICF to keep it plumb). Pull back the first 8” - 10” (203mm - 254mm) of the release paper and press the membrane to the wall. Continue pulling back the release paper and pressing membrane to the wall.

STEP 6: Continue applying cut pieces of membrane around the wall, maintaining a minimum of 2” (51 mm) overlap by using the printed marks on the membrane as a guide.

2.Dimple Membrane

In some cases, installing a flood boot (peel and stick over the bottom of your foundation wall and wrapping the footing) exceeds code requirements. In this case you can also place dampproofing over the rest of the below grade wall to minimize the amount of moisture permeating your foundation wall. We recommend a product called Platon Foundation Wrap.

STEP 1: Apply peel-and-stick waterproofing flood boot to cover the footing and wall to a point 12" higher than the anticipated water table. Follow product manufacturers instructions.

A flood boot must be installed prior to installing Platon if:

- A high water table is encountered
- The footing drain is placed on top of the footing
- Floor slab is poured level with, rather than on top of, the footing
- On any horizontal below grade step in the foundation such as a buried brick ledge

STEP 2: Secure Platon to ICF webs with 2" drywall screws and Speedclips every 16" (every second web). It is also a good idea to screw the middle and bottom of the Platon to the webs every 4' to resist wind movement and reduce wrinkles or creases in foundation wrap.

STEP 3: A working footing drain (weeping tile) is imperative with all foundation dampproofing systems. A continuous 4" (100mm) perforated o-pipe around the outside of the footing, connected to an interior sump, with top and side of pipe covered in a minimum of 6" (150mm) washed rock is most typical. Washed rock must be placed over the o-pipe and extended over the footing against the base of the Platon in accordance with local building codes. Other options may be available but make sure to follow the building codes in your area.

STEP 4: Backfill carefully; large rocks or frozen dirt clumps could negatively impact the Platon. Tears or holes reduces the efficacy of the dampproofing. Backfill in multiple lifts; compacting each lift will reduce excessive settling later.

Features and considerations include, but are not limited to:

- Platon is unrestricted by temperature or weather.
- Caulking can be used but must be foam compatible (i.e. foam panel adhesive)
- On a Speedclip, use the fastening hole that best lines up with ICF web

NOTE: Follow peel-and-stick manufacturer's instructions for surface preparation and temperature restrictions.

Installation procedure adapted from armtec Platon Foundation Wrap Installation Guide 2019
<https://armtec.com/products/platon-membrane/platon-foundation-wrap/>