

NUDURA® WATERPROOFING MEMBRANE

SUPERIOR PERFORMANCE

- NUDURA® Waterproofing Membrane is a peel and stick membrane that adheres to NUDURA® expanded polystyrene (EPS) foam ICFs.
- The membrane meets the material and performance requirements (for both commercial and residential use) of a Dampproofing Membrane as defined under both U.S. and Canadian Building Codes and as the wall component only of a Waterproofing Membrane System as defined under both Codes when installed as specified for “Waterproofing Applications” within these Installation Instructions.
- NUDURA makes available both summer and winter grade membranes as seasonal temperatures dictate. Be sure you qualify with your distributor, which grade you require at time of ordering.

DAMP-PROOFING VERSUS WATERPROOFING APPLICATIONS

- Before commencing installation, the installer will need to know whether the product is being installed in either a “Dampproofing” or “Waterproofing” application. Both U.S. and Canadian Building Codes require wall membranes to be installed as PART of a “Waterproofing System” whenever Hydrostatic Pressure will be present. (i.e. where the seasonal level of the water table will approach a level that is above any floor slab installed below grade).
- In such situations, the wall membrane MUST be installed in accordance with the requirements outlined in this document for “Waterproofing” Applications and it is to be installed in conjunction with approved membranes for under slab and under footing applications. NOTE: NUDURA Waterproofing Membrane is NOT to be used as an under slab or under footing application. Consult with your local building code for required materials that are approved for under slab or under footing Waterproofing Membranes.
- The membrane installer is responsible to assure that all local Code requirements with respect to either application are followed.

DELIVERY AND SITE CONSIDERATIONS

- Care should be taken to protect the material on site from moisture, dust and general wear and tear. To avoid damage, store rolls vertically in a cool, dry location, not in direct ground contact and protect with a tarp to prevent exposure to sunlight or weathering until ready to use.
- Working temperature range should ideally be between 41°F and 100°F (5°C and 38°C) Note: if below this range or other special conditions such as air borne dust exist on site, consider using “NUDURA® Membrane Primer” (available from your NUDURA distributor). To maximize primer-less adhesion on colder days, store the material in a heated location on site until needed (A heat gun can also be used to assist in application).
- NUDURA® Waterproofing Membrane should not be exposed to sunlight for extended periods of time. Backfilling should take place within 1 week of installing the membrane. If daytime temperature exceeds 80°F (27°C) after installation, NUDURA recommends shading the applied membrane temporarily until backfilling is completed.



NUDURA® WATERPROOFING MEMBRANE

WALL PREPARATION INSTRUCTIONS FOR DAMPPROOFING APPLICATIONS (REFER ALSO TO CCMC REPORT NO. 14093-R)

1. Ensure that the wall surface is smooth, clean and dry, free from dust, dirt and any other impurities that could be present on the wall. The footing projection and top 2" (50 mm) of the footing edge should also be clean and clear of backfill material to enable lapping of the membrane over this area.
2. If the EPS foam surface has been exposed to sunlight for extended periods of time, the resulting yellow dust coating must be fully removed in order for the membrane to adhere properly.
3. Any joints or gaps greater than 1/8" (3 mm) or physical projections, depressions or damage in the EPS foam surface that could be detrimental to the performance of the membrane must be foamed and troweled or cut smooth ready for membrane installation.
4. Establish the rough finished grade line around the entire perimeter of the building using a chalk line and/or marker. This will be the horizontal starting level of the membrane sheets. When the final sloped building apron grading is completed OVER this area, the finished grading for the building should be between 4 and 6 inches (100 to 150 mm) above the top edge of the membrane. This will also assure that should the grade subside due to settlement, the membrane will always be protected from solar or weather exposure.

- this area, the finished grading for the building should be between 4 and 6 inches (100 to 150 mm) above the top edge of the membrane. This will also assure that should the grade subside due to settlement, the membrane will always be protected from solar or weather exposure.
5. **IMPORTANT:** Finally, once cleaned and the top of membrane line is established, the full ICF surface that is designated for membrane installation must be primed with "NUDURA® Membrane Primer" (available from your NUDURA Distributor). Primer must be allowed to dry before membrane is applied. Drying time varies from 30 minutes to 3 hours based on weather conditions at time of application. (NOTE: Plan the primer installation to assure that membrane installation can be completed in full on the same day to avoid dust or other airborne particles from contaminating the primer surface).

WALL PREPARATION INSTRUCTIONS FOR WATERPROOFING APPLICATIONS (REFER ALSO TO CCMC REPORT NO.14095-R)

1. Ensure that the wall surface is smooth, clean and dry, free from dust, dirt and any other impurities that could be present on the wall. The footing projection and top 2" (50 mm) of the footing edge should also be clean and clear of backfill material to enable lapping of the membrane over this area.
2. If the EPS foam surface has been exposed to sunlight for extended periods of time, the resulting yellow dust coating must be fully removed in order for the membrane to adhere properly.
3. Any joints or gaps greater than 1/8" (3 mm) or physical projections, depressions or damage in the EPS foam surface that could be detrimental to the performance of the membrane must be repaired, foamed and troweled or cut smooth ready for membrane installation.
4. Establish the rough finished grade line around the entire perimeter of the building using a chalk line and/or marker. This will be the horizontal starting level of the membrane sheets. When the final sloped building apron grading is completed OVER

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MEMBRANE INSTALLATION INSTRUCTIONS FOR BOTH DAMPPROOFING AND WATERPROOFING APPLICATIONS

- 1** Installation works most efficiently with a 2 person work crew; one handling the material from each side. The most efficient method of installation is vertical application of the sheets with 3" (76 mm) overlaps at the sides of the material. If horizontal application of the material is preferred or required in some locations, be sure to work from the bottom of the wall to the top and lap material a minimum of 6" (152mm) in shingle fashion so that water is shed downward and OVER the layer below.
- 2** Begin material installation by first cutting strips of membrane 16" (406mm) to 24" (610mm) wide. These will be used to pre-seal all inside and outside corner conditions. Fold strips in half vertically.
- 3** At each inside corner, starting at the footing level, peel release paper away and apply the strips in a shingle like fashion from the base to the top of the corner, installing the strips vertically so that an equal amount of material is applied to either side of the corner. Take care to press the fold tightly into the corner so that no air pockets are trapped behind - then press or roll the membrane flat to the wall surfaces on either side using a plastic roller as necessary. Each strip of material should lap the strip below it by 6" (152mm) Continue application and lapping of the strips to the grade line and trim the membrane above it.
- 4** Select an outside corner for the start of full membrane installation and measure the distance from the chalked grade line to the top of the footing. For sloping grade lines, measure to longest side of the membrane.
- 5** Roll out the membrane on a flat surface, then mark and cut it to the required length.
- 6** Peel back the silicone release paper a distance of about 12" (305mm) from the top edge of the cut edge of the membrane.
- 7** Align the top edge of the membrane with the chalk line so that one side of the membrane extends past the corner by approx. 4" to 5" (102mm -127mm). (For sloping grade lines, lightly tack the portion of membrane above the chalk line and trim back to chalk line after rest of membrane is secured in place). Use the score lines in the form face as guides to keep the membrane vertical while installing.
- 8** While keeping the extended side of the membrane in plane with the starting wall, firmly press it into place onto the face of the EPS foam. Use the plastic roller to roll the membrane from the center out to the edges to prevent any air bubbles from getting trapped.
- 9** Continue down the surface of the wall by further peeling back the release paper and pressing and/or rolling the membrane into position as outlined in step 8. Repeat process down the length of the wall to the footing.
- 10** Make a Horizontal cut at the base of the wall where it contacts the footing to enable placement of the free hanging side of the membrane.
- 11** Now press the free 4" to 5" (102mm-127mm) side of the material into place down the opposing wall from the corner condition following procedure outlined in step 8.
- 12** For service or utility penetrations that project outward through the wall:
 - (a) Cut a 12" x 12" (305mm x 305mm) piece of membrane- then use the pipe as a template to cut 2 cross cut slits at the center of the piece just short of the full pipe diameter.
 - (b) Peel the backing paper away and slide the piece into place over the projecting pipe penetrating it through the center of the slits.
 - (c) Press the membrane piece firmly into place, sealing the flaps against the pipe.
 - (d) Apply the standard sheet membrane (cut to required length), following the same procedures as outlined in step 8, except at the pipe location - peel back the paper clear of the pipe, lower membrane to pipe and cut a cross slit right over pipe and seal around, then continue the installation procedure
 - (e) Should the service penetration be flush with the wall, mark this opening to allow the following sub trade the opportunity to use it.
- 13** For sites with coarse backfill or risk of sharp edged aggregates, NUDURA recommends that a backfill protection layer be installed over the waterproofing membrane consisting of board, heavy plastic sheet materials, fan-fold ribbed plastic board etc. Cut the protection layer so that it leaves the top 2 inches (50 mm) of the membrane accessible.
- 14** Before any backfilling is placed, the top edge of the membrane MUST be protected continuously around the complete building perimeter to prevent entry of water or soil from attacking the membrane bituminous layer or delamination the membrane from the wall. Apply a ½" (12 mm)

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continuous bead of EPS compatible pointing mastic and trowel smooth with a round faced joint caulking applicator tool.

15 IMPORTANT! Complete parging applications as outlined under Chapter 8 of NUDURA's Installation Manual as soon as possible after the membrane mastic has cured, to provide additional protection to the top of the membrane. The parging and mesh should be applied to extend a minimum of 1 inch (25 mm) over the top of the membrane. This Parge coat lap serves two important functions:

- (a) The stiffness of the cured coating and mesh combined- mechanically bonds the top of the membrane to the wall – thus assuring that the top of the membrane is held in firm contact with the EPS foam and cannot peel downward over time.
- (b) The lap also assures that any water draining down the face of the parging will shed water positively OVER the top edge of the membrane. Completing this prior to backfilling will assure soil will not interfere with application of the parging.

16 Backfilling should be completed to top level of membrane as soon as possible (ideally within one week of membrane application). This will protect the face of membrane from mechanical damage and from UV and weather exposure.