DELTA®-MS (Membrane System)

Foundation Waterproofing Membrane.™

Installation Manual
Method #3 (using DELTA®-FAST’ners)
DELTA®-MS
Foundation Waterproofing Membrane™

Health and Safety:
■ Required safety equipment: hard hat, safety boots, gloves, safety glasses.
■ Always follow all safety precautions as directed by the Occupational Safety and Health Administration (OSHA-USA) or the Construction Safety Association (Canada).
■ There are no health risks in using DELTA®-MS and the recommended components.
■ Please refer to Material Safety Data Sheets.
■ The general codes of practice for protection at work and instructions of the manufacturers for tools and components are to be observed at all times.

Recommended Tools:
■ Hammer or automated nailing gun (Trak-Fast 1100 or Hilti GX120).
■ Concrete nails 1 ¼” – 1 ½”.
■ Utility knife or tin snips.
■ Large caulking gun, chalk line, broom.

Getting Down to Installation:
■ Snap a chalk line 1” below expected final grade line as a starting point.
■ Clean top of footer of any gravel and debris with broom.
■ The “flat tab” and orange stripe of DELTA®-MS should always be at the top of the installation and facing the installer (see Detail 1).
■ Option 1:
  With the flat tab lined up along the chalk line, roll out DELTA®-MS continuously with the membrane draping over top of footing. Position the roll in the direction of installation for easy roll-out of the dimpled membrane (see Detail 2, Option 1).
■ Option 2:
  Place the bottom of the roll on top of the footing with the roll positioned in the direction of installation for easy roll-out of the dimpled membrane (see Detail 2, Option 2).
■ Always install DELTA®-MS tightly and evenly over the foundation wall.
■ For ease of installation, work with 2 people.
■ Roll out DELTA®-MS approximately 10’ in length along the wall.
■ As one person holds the DELTA®-MS, the other installs the DELTA®-FAST’ners in the body, at appropriate intervals as shown in Detail 3.
■ For rolls greater then 7’ in height an extra row of DELTA®-FAST’ners is suggested in the middle of the membrane.
■ Apply a bead of DELTA®-SEALANT behind the flat tab.
■ Install DELTA®-MOLD STRIP at the flat tab using concrete nails (see Detail 3).
Installing around Corners:
■ Install DELTA®-MS on inside corners as tightly as possible by pushing the membrane into the corner, then anchor it in place with DELTA®-FAST’ners in the body and DELTA®-MOLD STRIP on the flat tab (see Detail 4).
■ Install DELTA®-MS on outside corners as tightly as possible by pressing the membrane around the corner, then anchor it in place with DELTA®-FAST’ners in the body and DELTA®-MOLD STRIP on the flat tab (see Detail 5).
■ Do not install DELTA®-FAST’ners within 3” of outside corners to avoid damaging the concrete.

Joints and Overlaps:
■ Vertical joints require the installation of DELTA®-FAST’ners along the length of the joint 12” o/c, with minimum 6” overlap (see Detail 6).
■ For foundations higher than the roll height, install the first course by rolling out DELTA®-MS at the bottom of the wall. The next course of DELTA®-MS shall overlap the bottom layer by at least 6”, shingled downwards.
■ Horizontal joints require the installation of DELTA®-FAST’ners along the length of the joints at 3’ o/c. DELTA®-MOLD STRIP is not required on the lower overlapped section (see Detail 7).

Installation of DELTA®-MOLD STRIP:
■ Install DELTA®-MOLD STRIP at all below grade cuts of the membrane such as at window wells, walkouts, vertical termination, etc. (see Detail 8).
■ Cut back DELTA®-MS 3” from the edge of wall openings.
■ Position the wider edge of the DELTA®-MOLD STRIP over DELTA®-MS.
■ Use DELTA®-MOLD STRIP at sloped cuts in the DELTA®-MS.
■ Anchor DELTA®-MOLD STRIP 8” o/c using 1 ½” or 1 ¼” concrete nails.

Repairs:
■ Should DELTA®-MS get damaged prior to backfill, cut patches of DELTA®-MS large enough to cover any tear. Minimum 6” around damaged area.
■ Apply a bead of DELTA®-SEALANT around the tear.
■ Apply patch over tear and install DELTA®-FAST’ners to hold the patch tightly against membrane making sure dimples align (see Detail 9).

Service Penetration:
■ When encountering a service penetration protruding from the foundation, roll DELTA®-MS flush to penetration.
■ Cut the DELTA®-MS vertically. Fasten the cut end with DELTA®-FAST’ners to keep in place 3’ o/c vertically.
■ Restart application on other side of service penetration. Unroll enough DELTA®-MS to go around the service penetration plus another 6” for overlap.
■ Cut the length of unrolled portion horizontally at a point equal to the center
of the service penetration (see Detail 10).

- Pull the slit portion around the penetration and trim the DELTA®-MS to fit snugly.
- Peel back the cut membrane and apply DELTA®-SEALANT around the penetration.
- Push the cut membrane back around the penetration.
- Interlock the overlapping dimples.
- Treat as a standard vertical lap with DELTA®-FAST’ners 12” o/c, being sure to place a DELTA®-FAST’ner on top and bottom of the slit.

DELTA®-COLDJOINT BARRIER for moisture protection at cold joint area at the base of the wall.

DELTA®-COLDJOINT BARRIER must be installed prior to installing DELTA®-MS membrane if:

A fluctuating water table is encountered.
1. Footing drain is insufficient to take away water drained be DELTA®-MS without temporary backup.
2. Footing drain is placed on top of footing.
3. Floor slab is poured level with, rather than on top of footing.

Apply DELTA®-COLDJOINT BARRIER membrane or asphalt waterproofing to cover the footing and wall to a point one foot higher than the anticipated water table (see detail 11).

Clean-up and Inspection:
- Walk around foundation and ensure all materials are installed as required.
- Clean up all excess materials and remove from excavation.

Disposal of Waste:
- DELTA®-MS is made out of environmentally friendly HDPE.
- Waste can be recycled where facilities allow.

Limitations:
- DELTA®-MS should not be exposed to sun light (UV) for more than 30 days.

Note: Other approved installation methods are available at www.DELTA-MS.com

For technical support, call the Technical Support Team at 1-888-4DELTA4 (1-888-433-5824) ext: 326.

Evaluation Reports (Certifications)
Foundation Waterproofing
Membrane - ICC ES, ESR-2303
Drainage Layer – CCMC # 12788-R
Dampproofing – CCMC # 12658-R