

DELTA®-MS

Foundation Waterproofing Membrane.™

Below grade foundation waterproofing for block and poured concrete structures.

Installation Instructions

RECOMMENDED TOOLS:

- Concrete nails 1 1/4" - 1 1/2"
- Hammer or automated nailing gun Trak-Fast 1100, Hilti DXA 40, DXA 41
- Utility knife or tin snips
- Large caulking gun, chalk line, broom
- * For masonry installation Trak-Fast 1100 gun is recommended for installation on block. Attach with 1 1/4" - 1 1/2" concrete nail and DELTA®-FAST'ner.

GETTING DOWN TO INSTALLATION:

- Snap a chalk-line 1" below expected final grade line as a starting point, and clean top of footer from any gravel and debris with broom.
- The "flat tab" and orange stripe should always be at the top of your installation and facing the installer.
- 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 1).

ROLL OUT DELTA®-MS:

- For ease of installation it is suggested to work with 2 people.
- Roll out DELTA®-MS approximately 10' in length along the wall.
- As one person holds the DELTA®-MS, the other person installs initial DELTA®-FAST'ners at appropriate intervals as shown in the Anchoring Procedure.
- Always install the DELTA®-MS tight and even over the foundation wall.
- For foundation heights greater than the roll height start 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".

INSTALLING AROUND CORNERS:

- Install DELTA®-MS on **INSIDE CORNERS** as tightly as possible by pre-bending the membrane in the corner, then fastening it in place with DELTA®-FAST'ners.
- Install DELTA®-MS on **OUTSIDE CORNERS** as tightly as possible by pre-bending the membrane around the corner, then fastening it in place with DELTA®-FAST'ners. Do not install any DELTA®-FAST'ners within 5" of the outside corner to avoid damage to the wall (See Detail 2).

JOINTS AND OVERLAPS:

- Overlap DELTA®-MS at all joints at least 6" regardless of position.
- Apply a 1/2" bead of DELTA®-SEALANT between the two sheets to be overlapped (See Detail 3).
- **VERTICAL JOINTS** require the installation of DELTA®-FAST'ners over the full height of the joint at 12" o/c.
- **HORIZONTAL JOINTS** require the installation of DELTA®-FAST'ners over the full length of the joints at 12" o/c. DELTA®-FLASH is not required on the lower section (See Detail 4).

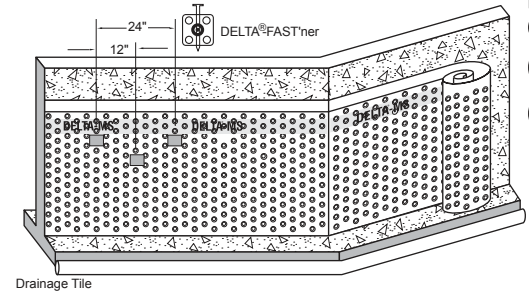
ANCHORING DELTA®-MS:

- For anchoring of DELTA®-MS use DELTA®-FAST'ners with 1 1/4" - 1 1/2" concrete nails.
- Install the first row of DELTA®-FAST'ners 2" below the orange stripe.
- Install the second row of DELTA®-FAST'ners 4" to 6" below the first row of DELTA®-FAST'ners, inserting them in a stitched "W" pattern at the required spacing (See Detail 5).

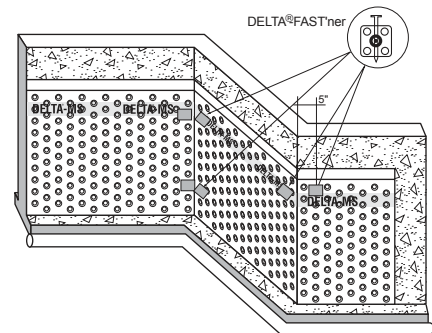
INSTALLING DELTA®-FLASH:

- Position the DELTA®-FLASH so that the top of the flat tab is completely covered behind the DELTA®-FLASH.
- Install 1 1/4" - 1 1/2" concrete nails at 8" o/c.
- Bend DELTA®-FLASH around inside and outside corners keeping it tight to the wall. Place nails at wall-corners not closer than 5" to the corner (See Detail 5).
- Install DELTA®-FLASH at all vertical terminations of the membrane.

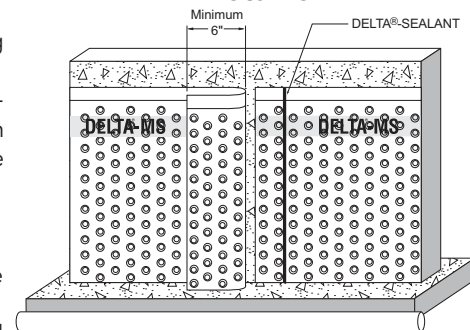
Detail 1



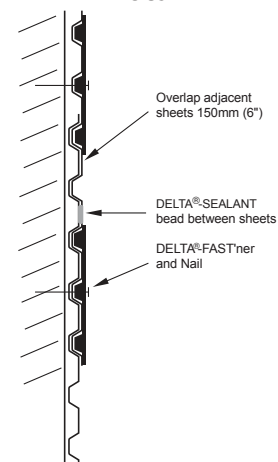
Detail 2



Detail 3



Detail 4



DELTA® protects property. Saves energy. Creates comfort.

DELTA®-MS

Installation Instructions *continued*

- Install DELTA®-FLASH at all below grade cuts of the membrane such as at window wells, walkouts, etc. (See Detail 5).
- Cut back DELTA®-MS 4" from edge of wall opening for installing DELTA®-FLASH, positioning the edge of the DELTA®-FLASH over the DELTA®-MS.
- Use DELTA®-FLASH at sloped cuts in the DELTA®-MS.

REPAIRS:

- In case the membrane gets damaged prior to backfill cut patches of DELTA®-MS large enough to cover any tear.
- Apply a bead of DELTA®-SEALANT around tear in membrane.
- Apply patch over tear and install DELTA®-FAST'ners to hold patch tight against membrane (See Detail 6).
- For technical assistance call the Technical Support Team at 1-888-4DELTA4.

SERVICE PENETRATION:

- Caulk all joints/overlaps in service penetrations including through wall.
- Unroll the DELTA®-MS and cut for overlaps as shown (See Detail 7).

CLEAN-UP AND INSPECTION:

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

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 is no health risk in using DELTA®-MS and the recommended components. However, the general codes of practice for protection at work and instructions of the manufacturers of tools and components are to be observed.

DISPOSAL OF WASTE:

- As DELTA®-MS is made out of environmentally friendly HDPE, waste can be placed in household disposal areas and recycled.

LIMITATIONS:

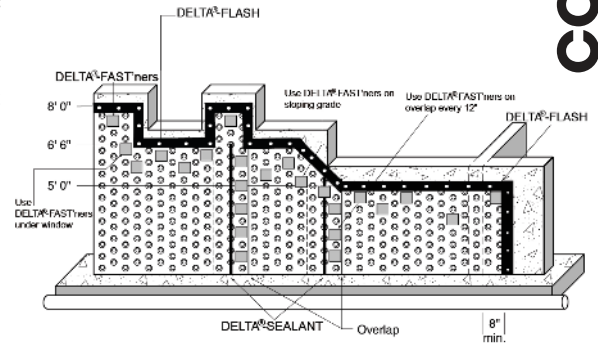
- DELTA®-MS should not be exposed to ultraviolet light for more than 4 weeks.

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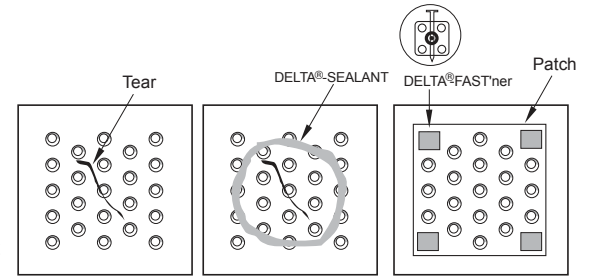
DELTA®-branded quality products manufactured by Cosella Dörken.

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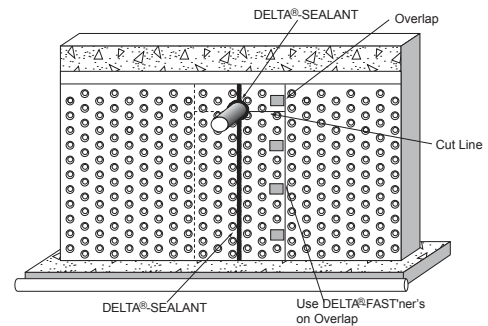
Detail 5



Detail 6



Detail 7



Approximate Conversions to Metric Measures

Symbol	Multiply by	To Find
in (")/inches	25	mm/millimeters
ft (')/feet	300	mm/millimeters
		1000 mm (millimeters)= 1m (metre)
<i>Example: 1.5" to mm: 1.5 x 25= 37.5 mm</i>		
<i>Example: 10' to m: (10 x 300)/1000= 3 m</i>		