DELTA®-MS CLEAR
Foundation Waterproofing For Insulated Concrete Forms.™
Installation Instructions

RECOMMENDED TOOLS: DELTA®-MS CLEAR
- Nail pouch
- Power Drill with Bits to fit Self Tapping Screws (size recommended by ICF Manufacturer)
- 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, and clean top of footer from any gravel and debris with broom.
- Begin installation at front corner of garage where DELTA®-MS CLEAR terminates.
- Install DELTA®-MS CLEAR with the dimples facing towards the foundation wall. The “flat tab” and orange stripe should always be at the top of your installation.
- 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 Diagram 1).

ROLL OUT DELTA®-MS:
- For ease of installation it is suggested to work with 2 people.
- Roll out DELTA®-MS CLEAR approximately 10’ in length along the wall.
- As one person holds the DELTA®-MS CLEAR, the other person installs initial fasteners at appropriate intervals as shown in the Anchoring Procedure.
- Always install the DELTA®-MS CLEAR tight and even over the foundation wall.
- For foundation heights greater than the roll width start rolling out DELTA®-MS CLEAR at the bottom of the wall. The next course of DELTA®-MS CLEAR shall overlap the bottom layer by at least 6”.

INSTALLING AROUND CORNERS:
- Install DELTA®-MS CLEAR on INTERIOR CORNERS as tightly as possible by pre-bending the membrane in the corner, then fastening it in place with anchors (see Diagram 2).
- Install DELTA®-MS CLEAR on EXTERIOR CORNERS as tightly as possible by pre-bending the membrane around the corner, then fastening it in place with anchors. (see Diagram 2).

JOINTS AND OVERLAPS:
- Overlap DELTA®-MS CLEAR at all joints at least 6” regardless of position.
- Apply a “ bead of DELTA® MS SEALANT between the two sheets to be overlapped (see Diagram 3).
- Ensure that the dimples interlock when overlapping DELTA®-MS CLEAR at a joint.
- VERTICAL JOINTS require the installation of fasteners over the full height of the joint at intervals appropriate to the ICF attachment layout in a stitched “W” pattern (see Diagram 4).
- HORIZONTAL JOINTS require the installation of fasteners over the full length of the joints at internals appropriate to the ICF attachment layout. Termination bar is not required on the lower section (see Diagram 4).

ANCHORING DELTA®-MS CLEAR:
- For anchoring of DELTA®-MS CLEAR use DELTA®-FAST’ners or DELTA®-PLUGS with self tapping screws (per ICF Mfr.)
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• Install the first row of anchors below the orange stripe on the DELTA® MS CLEAR to match attachment strips of ICF.
• Install the second row of anchors below the first row of anchors, inserting them in a stitched “W” pattern at the required spacing per attachment strips of ICF (see Diagram 5).
• When using DELTA®-FAST’ners ensure that all 5 dimples of the anchor interloc• with the membrane.
• Note: The installation method shown on Diagram 5 is applicable for good to medium draining soils. In heavy clay conditions it is suggested to space the DELTA®-FASTNERS at close spacing.

INSTALLING DELTA®-TERMINATION BAR AND SEALING OF FLAT TAB:
• Position the termination bar 1” down from the top of the flat tab and apply self tapping screws in appropriate place at attachment strips using self tapping screws (per ICF Mfr.) (see Diagram 5).
• Apply the termination bars tightly to the wall.
• Pre-bend termination bar around inside and outside corners to keep it tight to wall. Caulk any gaps greater than 1/4” with a LATEX or WATER BASED SEALANT.
• Alternatively the termination bars can be terminated short of the corners.
• Pull back top of flat tab to pour a 1/2” diameter bead of LATEX OR WATER BASED SEALANT behind in order to seal the top of the membrane to the wall.

INSTALLING DELTA®-FLASH: (optional)
• Position the DELTA®-FLASH so that the top of the flat tab is completely covered behind the DELTA®-FLASH.
• Install appropriate self-tapping screws at spacing of attachment strips of the ICF in the crease line of the DELTA®-FLASH.
• Pre-bend DELTA®-FLASH around inside and outside corners keeping it tight to the wall. (see Diagram 6).

INSTALLING DELTA®-MOLD STRIPS:
(at wall openings for windows and doors)
• Install DELTA®-MOLD STRIPS at all vertical terminations of the membrane.
• Install DELTA®-MOLD STRIPS at all below grade cuts of the membrane such as at window wells, walkouts, etc. (see Diagram 7).
• Cut back DELTA®-MS 4” from edge of wall opening for installing DELTA®-MOLD STRIPS, positioning the large edge of the molding over the DELTA®-MS CLEAR.
• At vertical terminations position DELTA®-MOLD STRIPS over termination bars where applicable.
• Install appropriate self tapping screws in the thin edge of all mold strips at the attachment strips of the ICF Units.
• Use DELTA®-MOLD STRIPS at sloped cuts in the DELTA®-MS CLEAR (see Diagram 7).

REPAIRS:
• In case the membrane gets damaged prior to backfill cut patches of DELTA®-MS CLEAR large enough to cover any tear.
• Apply 1/2” dia. bead of DELTA®-SEALANT around tear in membrane (allow CLEARance to ICF Block Material).
• Apply patch over tear and install DELTA®-FAST’ners or DELTA®-PLUGS to hold patch tight against membrane with self-tapping screw into attachment strips of ICF (see Diagram 8).
• For technical assistance call the Cosella-Dörken Technical Service.
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SERVICE PENETRATION:
- Caulk all joints/overlaps in service penetrations including through wall.
- Unroll the DELTA®-MS CLEAR and position for overlaps as shown (see Diagram 9).

CLEAN-UP AND INSPECTION:
- Walk around foundation and ensure all fasteners are installed as required.
- Where applicable ensure all repairs are completed properly.
- Pay special attention to DELTA®-TERMINATION BAR or DELTA®-FLASH for proper nailing, and ensure all caulking is completed 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 CLEAR 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 CLEAR is made out of environmentally friendly HDPE, waste can be placed in household disposal areas.

LIMITATIONS:
- DELTA®-MS CLEAR should not be exposed to ultraviolet light for long periods.

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