



INSTALLATION GUIDELINES CLAY-TITE™ - UNDERSLAB APPLICATION

This document has been created as an addendum to our CLAY-TITE technical data sheet to provide information regarding the application of CLAY-TITE bentonite waterproofing membrane when installed below-slab on-grade. Following are the typical installation instructions recommended by W. R. MEADOWS. It is important to review each application as there may be situations that may require this procedure to be modified based on the project requirements. If this situation arises, please contact W. R. MEADOWS Technical Service.

PRODUCTS REQUIRED

- CLAY-TITE waterproofing membrane: dual-layer waterproofing membrane consisting of virgin HDPE (20 mil), sodium bentonite, and a protective layer consisting of a non-woven polypropylene
- CLAY-TITE MASTIC: to be used in situations below the water table or when temperatures are going to be below 40°F (4°C)
- CLAY-TITE ADHESIVE: water-based acrylic adhesive for seams/waterstop to be used when above the water table and temperatures are above 40°F (4°C)
- WATERSTOP EC: regular version waterstop containing bentonite
- WATERSTOP EC PLUS: combination of hydrophilic rubber and bentonite for use in applications below the water table
- CLAY-TITE GRANULAR PACK: 30 pound bags of bentonite for coves and other detailing
- PMPC TAPE: to be used to tape over all exposed fasteners and seams
- MEL-DRAIN drainage board
- TERMINATION BAR

LIMITATIONS

- CLAY-TITE products are required to be installed in situations where a minimum compaction/confinement of 24 psf can be achieved.
- Do not install CLAY-TITE products over areas where standing water, snow, or ice is present.
- For areas in which the ground water has a high sodium level (sea water or brackish water), contact W. R. MEADOWS Technical Services prior to installation. CLAY-TITE HSR from W. R. MEADOWS can be used in this installation. A water test may be needed to determine the suitability of the membrane for use in specific ground conditions.

STORAGE

- Protect from moisture.
- Store on a skid or pallet and cover with polyethylene or tarp.
- Do not double stack pallets.
- Prevent hydration of bentonite until the membrane is installed and under recommended compaction.

SUBSTRATE PREPARATION

COMPACTED SUB-GRADE

1. Prepare sub-grade prior to placement of CLAY-TITE in accordance with ACI 302.1R-04: Chapter 4, Section 4.1.4 – Base Material.
2. Level, tamp, or roll earth or granular material beneath the slab base as specified by supplied architectural drawings to create a sound and solid substrate to eliminate any potential movement during the concrete pour that could affect the integrity of CLAY-TITE.



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MUD SLAB

1. Alternatively, a mud slab designed by the architect or engineer can be used as the substrate with no effect on the performance of CLAY-TITE.
3. Prepare sub-grade prior to placement of CLAY-TITE in accordance with ACI 302.1R-04: Chapter 4, Section 4.1.4 – Base Material.

DETAILING

PENETRATIONS

1. Fill voids with concrete grout or CLAY-TITE MASTIC and trowel around penetration ensuring all areas are completely filled.
2. Cut CLAY-TITE strips 6" wide to wrap the pipe and cut flanges across this strip to aid in wrapping the strip around the penetration and fasten into place.
3. Install WATERSTOP EC or WATERSTOP EC PLUS (below water table) around penetration and press into installed CLAY-TITE membrane.

CONSTRUCTION JOINTS

1. Install WATERSTOP EC or WATERSTOP EC PLUS (below water table) a minimum of 2" (5 cm) from face of wall.
2. Prior to installation, apply CLAY-TITE MASTIC in all areas to receive WATERSTOP EC.
3. Remove release paper to expose adhesive on WATERSTOP EC.
4. Fasten with nails and washers every 12" O.C.
5. For subsequent applications of WATERSTOP EC, butt ends of waterstop together to ensure continuity.

MEMBRANE INSTALLATION

1. Install CLAY-TITE with the bentonite side facing up towards the concrete pour and the HDPE side facing down.
2. Lap all seams a minimum of 4" (101.6 mm) and staple the seam every 6-12" O.C. Ensure that all laps are shingled to shed water.
3. Apply CLAY-TITE MASTIC over all fasteners.

In situations where CLAY-TITE has the potential to be exposed to wet conditions for an extended period of time, the membrane should be installed HDPE side facing up. If this is the case, prior to installation of CLAY-TITE, install PERMINATOR_® (10 mil) on the properly prepared sub-grade. Lap all seams of CLAY-TITE a minimum of 4" (101.6 mm) and then install PMPC TAPE over all seams and roll press into place.

CONCRETE PLACEMENT

1. Protect CLAY-TITE from damage that can be caused by reinforcing steel chairs by using chairs with sand plates. Alternatively, a piece of PROTECTION COURSE from W. R. MEADOWS can be placed beneath each reinforcing steel chair.
2. Prior to concrete pour, repair any damaged areas of CLAY-TITE and confirm all detailing has been completed to ensure continuity.
3. Do not drop concrete from a height greater than 4' (1.2 m).
4. Place concrete in a method so as to not damage the CLAY-TITE membrane.
5. All concrete needs to be compressed or compacted a minimum of 24 psf.

