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JULY 2021
(Supersedes April 2018)

CLAY-TITE™

Waterproofing Membrane

DESCRIPTION

CLAY-TITE is a dual layer waterproofing consisting of virgin HDPE (20 mil), sodium bentonite, and a protective layer consisting of a non-woven polypropylene. The HDPE provides the first layer of waterproofing, while the bentonite's self-sealing capabilities ensure positive puncture protection under hydrostatic conditions. The polypropylene fabric protects the bentonite from direct installation of shotcrete.

USES

Designed for use below-grade, CLAY-TITE is equally effective in installations where the waterproofing is pre-applied prior to pouring of the concrete or when used for standard applications. CLAY-TITE can be used in both vertical and horizontal applications.

FEATURES/BENEFITS

- Provides a tough, durable waterproof seal.
- Self-seals under hydrostatic conditions.
- Outstanding performance when used in high water head conditions.
- Can be installed on green or damp surfaces.

PACKAGING

3.5' x 21.5' (1.1 m x 6.6 m) or 75 SF (7 m^2) standard rolls

STORAGE AND HANDLING

Protect from moisture. Store on skid or pallet; cover with polyethylene or tarp.

APPLICATION

Surface Preparation ... Surface must be smooth, sound, and void-free prior to installation of CLAY-TITE. All openings >1" (25.4 mm) must be detailed using plywood, grout, or alternate method to provide a sound substrate. Remove all sharp protrusion greater than 1/4" (6.4 mm)

For areas in which the ground water has a high sodium level (sea water or brackish water), contact W. R. MEADOWS technical services for recommendations. CLAY-TITE HSR from W. R. MEADOWS may be required in this installation. A water test may be needed to determine the suitability of the membrane for use in specific ground conditions.

Detailing ... W. R. MEADOWS offers CLAY-TITE MASTIC and CLAY-TITE ADHESIVE for seam laps. CLAY-TITE MASTIC is to be used in situations below the water table or when temperatures are going to be below 40° F (4° C). CLAY-TITE ADHESIVE is to be used when above the water table and temperatures are above 40° F (4° C). In most applications, CLAY-TITE MASTIC is the preferred product.

Blindside Installation ... Ensure that surface to be waterproofed is sound and void-free. The use of MEL-DRAIN 5035 from W. R. MEADOWS is recommended for all applications. Mechanically attach MEL-DRAIN to soil retention. CLAY-TITE can be installed either vertically or horizontally with the HDPE surface towards the drainage board. Mechanically affix CLAY-TITE across the top every 20" (508 mm). Lap all seams a minimum of 4" (101.6 mm). If installed in the horizontal direction, ensure that seams are shingled in a manner to shed water. All seams should be nailed every 2' (0.6 m) and a staple placed between the nails. Apply CLAY-TITE MASTIC from W. R. MEADOWS over all fasteners. For detailed instructions, refer to CLAY-TITE BLINDSIDE INSTALLATION GUIDELINE available at www.wrmeadows.com.

Backfilled Wall ... Install CLAY-TITE with the bentonite side towards the concrete. At the top of the membrane, affix TERMINATION BAR from W. R. MEADOWS. All lap seams must overlap at least 1.5" (38 mm). Make sure to shingle all overlaps to shed water. Mechanically attach all seams at 24" (609.6 mm) on center and apply PMPC TAPE from W. R. MEADOWS on joint. For detailed instructions, refer to CLAY-TITE BACKFILLED WALL INSTALLATION GUIDELINES available at www.wrmeadows.com.

CONTINUED ON THE REVERSE SIDE...

W. R. MEADOWS, INC.
P.O. Box 338 • HAMPSHIRE, IL 60140-0338
Phone: 847/214-2100 • Fax: 847/683-4544
1-800-342-5976
www.wrmeadows.com • info@wrmeadows.com

Penetrations and Protrusions ... Fill void around penetration with CLAY-TITE GRANULAR PACK from W. R. MEADOWS or CLAY-TITE MASTIC. Trowel CLAY-TITE MASTIC covering the penetration. Using a 6″ (152.4 mm) cut strip of CLAY-TITE, form a collar around the penetration and hold in place with fasteners. Install WATERSTOP EC from W. R. MEADOWS around the penetration.

PRECAUTIONS

CLAY-TITE installation must be confined by a minimum of 24 lb./ft.^{2} (117.2 kg/m^2). Keep CLAY-TITE dry; protect from exposure to the elements. Do not install in areas of ponding water or ice. For installation temperatures below 40° F (4° C), use CLAY-TITE MASTIC in place of CLAY-TITE ADHESIVE. In areas under constant hydrostatic head conditions, all joints and seams are to be detailed using CLAY-TITE MASTIC.
For most current data sheet, further LEED information, and SDS, visit www.wrmeadows.com.

TECHNICAL DATA

Property	Test Method	CLAY-TITE Results
Membrane		White 20-mil Virgin Resin HDPE
Bentonite		Sodium Montmorillonite
Weight		1 lb./ft.^{2} (4.89 kg/m^2)
Puncture Resistance	ASTM E154, Section 10	170 lb. (77.1 kg)
Tensile Strength, Membrane	ASTM D638	MD: 3660 psi (25.2 MPa) TD: 3650 psi (25.2 MPa)
% Elongation at Break	ASTM D638, Type I dogbone	>700%
Crack Bridging		3/8” (9.6 mm) Crack
Resistance to Hydrostatic Head	ASTM D751, Procedure A	174’ (52.9 m) of water
Water Vapor Permeability	ASTM E96-80	0.53 x 10-13 cm/sec 0.84 ng/ m^2.s.Pa 0.033 Perms (grains/ft.^{2}* hr * inHg)
Toxicity		Low. Do not ingest.
Staining		No known incompatibilities
Chemical Resistance		Extremely high resistance to chemicals and gases.
Freeze/Thaw Cycles		No effect before or after installation.
Installation Temperatures	ASTM D746, ASTM D1238	-40˚ to 150˚ F (-40˚ to 65.5˚ C)