SIMPLY WATERPROOFING

SimplyClay 1000

Exterior Below-Grade Commercial Bentonite Waterproofing System

Description

SIMPLY-CLAY 1000 is a multi-layer waterproofing membrane consisting of bentonite granuals, virgin high-density polyethylene, and a protective layer of non-woven polypropylene. The tough HDPE membrane provides the primary waterproofing envelope while the expandable bentonite clay provides the self-sealing reassurance under hydrostatic conditions. The polypropylene fabric protects the bentonite from exposure to inclement weather and direct installation of shotcrete.

Uses

SIMPLY-CLAY 1000 waterproofing membrane is used on structures below grade and is especially effective where the waterproofing is applied before the walls or floor are poured. SIMPLY-CLAY 1000 is effective for blindside installation such as lagging, under floors, and elevator pits or standard installations such as backfilled wall, decks/tunnels. It has outstanding performance when used under conditions of high water head.

Installation

For specific installation guidelines, please contact our distributor, a Simply Waterproofing Representative, or visit our website at www.SimplyWaterproofing.com for details.

Required Prep Work

SIMPLY-CLAY 1000 requires firm background to maintain 24 lb per sf compression. Fill voids or spaces more than 1" with grout and/or plywood. Remove nails and sharp protrusions over 1/4" (6.4mm) Installation may proceed on green concrete with damp or frozen surfaces in all weather, but standing water must be removed. Cover lagging boards and soldier piles with suggested drainage layer. Complete installation by sealing at penetrations (utility and/or tiebacks) as described and illustrated in the installation detail drawings.

Free Standing Poured Wall

SIMPLY-CLAY 1000 rolls are installed, either vertically or horizontally, with the bentonite side towards the concrete structure by nailing across the top every 20" (0.51 m), lapping seams at least 4" (10.2 cm). Overlap seams as shingles. Close the seams with nails at 3' (0.9 m) o.c. and Seam Tape.

Lagging

SIMPLY-CLAY 1000 rolls are installed, either vertically or horizontally with the bentonite side towards the concrete structure, by nailing across the top every 20" (0.51 m), lapping seams at least 4" (10.2 cm). Overlap seams as shingles. Close the seams with nails at 2' (0.6 m) o.c. and box staple between.

Under Slab

SIMPLY-CLAY 1000 waterproofing system will provide a waterproof seal and a vapor barrier. Roll out membrane bentonite-side up on the mud slab or over compacted earth with. Overlap and stagger seams at least 4" (7.6 cm). Fasten with staples or nails. Tape seams. Tie in the floor to other surfaces as described by the manufacturer. Protect area from flooding prior to concrete pour.

Protection

The SIMPLY-CLAY 1000 waterproofing system does not require an additional protection course for most applications. For heavy mat slab applications, a protection slab may be desirable. Contact your Simply Waterproofing Representative for details.

Packaging

3.5' x 21.5' (1.1 m x 6.6 m) or 75 SF (7 m2) standard rolls. Customized lengths are available by SPECIAL ORDER. Each or 20 rolls per pallet maximum.

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Storage

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

Availability

Available internationally and nationally through Simply Waterproofing distributors. Contact us for details.

Limitations

SIMPLY-CLAY 1000 installation must be confined by a minimum of 24 lbs per sf. Keep SIMPLY-CLAY 1000 dry, protect from exposure to the elements. SIMPLY-CLAY 1000 is resistant to many common contaminants in soil. Please contact Simply Waterproofing for compatibility testing.

Limited Warranty

Simply Waterproofing Products warrants its products will be delivered free of defects in materials and workmanship. Simply Waterproofing will replace the material or refund the purchase price. Simply Waterproofing makes no other warranty, including an implied warranty of merchantability or fitness for a particular purpose. Simply Waterproofing shall not be liable for any other loss or damage. Contact Simply Waterproofing to discuss specific details for extended warranty periods.

SYMPLY WATERPROOFING products support sustainable and energy-efficient building practices, including efforts toward achieving LEED® certification (LEED® for New Construction & Major Renovations, LEED® for Core and Shell, LEED® for Existing Buildings and LEED® for Homes).

For Technical Support contact Simply Waterproofing via email at: info@simplywaterproofing.com or visit www.simplywaterproofing.com.

HEALTH AND SAFETY INFORMATION IS GIVEN IN THE SAFETY DATA SHEET (SDS) AND THE PRODUCT DATA SHEET AVAILABLE FOR THIS PRODUCT. THESE SHOULD BE READ AND UNDERSTOOD BEFORE USING THIS PRODUCT.

Simply-Clay 1000 Typical Physical Properties		
Property	**Method**	**Results**
Thickness	--	.16"
Membrane		Green 20-mil virgin resin HDPE
Bentonite		Sodium Montmorillonite
Weight		1 lb per sq foot (4.89 kg/m^2)
Puncture Resistance	ASTM-E-154-88 Section 10	170 LBS (77.3 kg)
Tensile Strength: Membrane	ASTM D638	MD: 3660 psi (25.2 MPa) TD; 3650 psi (25.2 MPa)
% Elongation at break	ASTM D638 Type 1 dogbone	>700%
Crack Bridging		3/8" (0.95 cm) crack
Resistance to hydrostatic head	ASTM D751 Procedure A	174 ft. (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)
Resistance to micro-organisms: (bacteria, fungi, mold, yeast)	ASTM E154-88 Section 13	Unaffected
Toxicity:		Low. Do not ingest
Staining:		No known incompatibilities
Chemical Resistance:		Extremely high resistance to chemicals & gases. Contact manufacturer for specific information.
Freeze/thaw stability		No effect before or after installation.
Installation Temperatures	ASTM D746, ASTM D1238	-40˚F to 150˚F (-40˚C to 65.5˚C)
Life Expectancy		Both high-density polyethylene and bentonite have life expectancy measurable in thousands-of-years.

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