



Exterior Below-Grade Commercial Bentonite Waterproofing System

ArmorClay 600

Description

ArmorClay 600 waterproofing membrane combines the thermal stability and high performance of a cross-laminated HDPE sheet with the long-term sealing of bentonite clay. Installation is fast and efficient - bonding tightly to the recommended Spray Adhesive*. **NO NAILING IS REQUIRED.** It is non-toxic, fire resistant, and emits no solvents or VOC's. MarClay 600 will have unsurpassed life expectancy and provide waterproof protection equal to the life of the structure.

Uses

ArmorClay 600 is a waterproofing membrane designed for use on below-grade or split-slab structures. It is excellent for use on poured and ICF foundation walls, tunnels, plaza and parking decks. It is designed for easy installation with ArmorClay Mastic Adhesive depending on the project.

Features and Benefits

- Strong cross-laminated HDPE
- Self-sealing bentonite layer
- Easy installations with ArmorClay Mastic Adhesive on seams
- Adhesion to concrete
- Adjustable placement
- Longevity: life of the structure
- No VOC—solvent free

Surface Preparations

The substrate must be properly prepared to receive the ArmorClay 600 waterproofing membrane. All honeycombs, form-tie cavities and indentations should be filled with ArmorClay Mastic or filled with latex Portland cement. Substrate must be smooth and uniform removing any protrusions over 1/2" (12 mm) from the surface. Footings must be free of soil, rocks or debris to provide a suitable substrate to receive the ArmorClay 600 waterproofing membrane.

Required Prep Work

Examine all surfaces prior to starting application. Standing water, sharp protrusions over 1/4" (6.4 mm) and all debris must be removed. ArmorClay 600 is compatible with most release agents and may proceed on damp/uncured but not wet surfaces. Trowel ArmorClay Mastic at vertical-horizontal inside corner transitions prior to installing ArmorClay 600. Granular pack may be used on wall to footing inside corners.

Packaging

Rolls of 39' x 37' (0.99 m x 11.2 m) or 120 SqFt (11 m²) per package weight 72 lbs (32.7 kg) .6 lbs per SqFt. Each or 25 rolls per pallet maximum.

Installation for Backfilled Structures

ArmorClay 600 rolls are installed either vertically or horizontally with bentonite towards the concrete structure, lapping seams 1 1/2" to 3" (3.8 to 7.6 cm). *3M HoldFast70 Spray Adhesive or equal can be used to affix to various surfaces. Apply Spray Adhesive with recommended spray gun and hose. After Spray Adhesive application, allow it to cure to 50% dry, before applying the ArmorClay 600 waterproofing membrane. If sheet adjustment is required remove immediately and reapply Adhesive and let cure to 50% dry before reattaching ArmorClay 600. Mechanical fasteners may be used as necessary.

Seal seams with ArmorClay Bitumen Tape and Mastic Adhesive. Cover ArmorClay 600 with insulation, drain board, protection board, or 20 mil HDPE as specified. Backfill and compact to minimum 85% modified proctor.

Detail requirements for standard installation details; follow the ArmorClay 600 details drawings. For non-standard installation instructions contact your local Mar-flex Waterproofing & Building Products representative. Mar-flex recommends the use of Geo-mat HC, a geo-composite drain board, to facilitate the removal of water away from the structure or Mar-flex Shockwave Board. The ArmorClay 600 and the Mar-flex Geo-mat HC, Shockwave and Geo-Drain drainage system provides maximum protection against water penetration.

Storage

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

Limitations

ArmorClay 600 membranes should remain dry before and during installation. Improper storage could lead to product deterioration. ArmorClay 600 must be confined by a minimum of 24psf. Not for use on CMU foundations.

Limited Warranty

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



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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.

ArmorClay 600 Typical Physical Properties		
Property	Method	Results
Thickness	--	.09"
Membrane		Black 4-mil cross laminated HDPE
Puncture-Propagation Tear Resistance	ASTM D2582	7.7 lbs. (3,500 gm)
Tensile Strength: Membrane (psi)	ASTM D882	6,100 psi (42 MPa)
% Elongation at break	ASTM D882	100%
Bentonite		Sodium Montmorillonite (>90%)
Overall Weight		0.6 lb per sq foot (2.44 kg/m ²)
Resistance to hydrostatic head	ASTM D751 Procedure A	174 ft. (52.9 m) of water
Crack Bridging		1/8" (0.32 cm) crack
Water Vapor Permeability:	ASTM E96	0.53 x 10 ⁻¹³ cm/sec 0.84 ng/ m ² .s.Pa 0.033 Perms (grains/ft ² * hr * inHg)
Installed System with Bitumen Taped Seams		
Puncture Resistance Membrane	ASTM-D-781	110 Kg/CM
Puncture Resistance of composite membrane	ASTM-E-154	40 Min. Lbs
Tensile Strength of composite membrane	ASTM-D-412 Modified Die C	750 psi Min
Elongation-Ultimate failure of Rubberized Asphalt	ASTM-D-412-Modified Die C	400% Min
Water Vapor Transmission-Permeance	ASTM-E-96 Method B	0.1 Max Grains/SF/Hr in HG