Exterior Below-Grade Commercial Sheet Waterproofing Membrane

ArmorSheet 400

Description

ArmorSheet 400 is an all-purpose 40 mil prefabricated self-adhering sheet-type waterproofing membrane. It is comprised of a high-tensile polyester film that is coated with a layer of specially formulated rubberized asphalt adhesive. A release sheet protects the asphalt and is removed as the membrane is installed. ArmorSheet 400 is engineered to be a multi-purpose waterproofing sheet suitable for use under siding and exterior plaster. ArmorSheet 400 adheres aggressively to most clean, dry substrates including metal, wood vinyl and masonry. The special ArmorSheet 400 polymer modified waterproofing compound self-seals around punctures such as nails, screws and staples. This all-purpose system bonds to the substrate and seals around fasteners to help prevent damage caused by water penetration.

Roll size = 36" x 75' (225 sqft) Each or 25/Pallet

Installation

Preparation:

Do not apply ArmorSheet® to wet or wet substrates. The membrane should not be left exposed to direct sunlight for longer than 60 days. ArmorSheet® can be applied to concrete, metal, wood, insulated wall systems or masonry surfaces. All substrates must be clean, dry and free of surface irregularities.

Concrete Substrates:

Structural concrete must be cured a minimum of 7 days and lightweight structural concrete must cure a minimum of 14 days before the application of ArmorSheet®. Repair surfaces that are not structurally sound or have voids, protrusions, rough spalled areas, loose aggregate or exposed coarse aggregate. Any voids exceeding ¼" in width should be filled with latex Portland cement, concrete or epoxy concrete and troweled smooth to match the existing surface. Protrusions and other rough areas should be broken off and patched as above. Mar-flex ArmorMastic200 may be used to fill small honeycombs or bug holes.

Masonry Substrate:

Apply ArmorSheet® waterproofing over concrete block with smooth trowel-cut mortar joints or rough surfaces prepared with a parge coat. Allow the parge coat to dry before priming and installing the ArmorSheet® waterproofing membrane.

Chemical Additives:

Concrete shall be cured by water curing method. Any curing compounds must be of the pure sodium silicate type or clear resin-based materials without waxes, oils or pigments and be approved by the Mar-flex representative. Form release agents must not transfer to the concrete. Remove forms as soon as possible from below horizontal slabs to prevent entrapment of excess moisture. Excess moisture may lead to blistering of the membrane. Curing compounds or form release agents that adversely affect the adherence of the ArmorSheet® waterproofing membrane must be removed from the substrate prior to application.

Priming:

All concrete, metal, masonry, wood and sheathing substrates require priming. Insulated concrete forms require a water-based primer like the Mar-flex 710 WB primer. The Mar-flex 700 Solvent Base primer is also available for lower temperature applications and should be fully cured before sheet application. Mar-flex recommends an adhesion test of the ArmorSheet® on any bare substrate to verify proper adhesion. Apply the appropriate primer at the specified coverage rate. Apply primer with a lambswool roller, brush or spray apparatus. Allow primer to dry for a minimum of 60-120 minutes. The primer will dry to a tacky finish.

Areas primed but not covered with ArmorSheet® within the same day must be re-primed. When installing the sheet membranes and sheet flashings over gyp-sheathing with glass-mat facers, coverage rates for contact adhesives and primers will depend on the porosity and texture of the sheathing and will vary substantially by gypsum-sheathing brand and manufacturer. To achieve consistent primer coverage with adequate tack, it may be necessary to decrease the coverage rate (i.e. increase the amount applied) of the primer and/ or the application of multiple coats. Primers shall be allowed to dry completely as lower temperatures will extend drying time, before additional coats are applied, or membranes installed. Caution should be taken as primers applied to gyp-sheathings with glass-mat facers will take longer to dry than other substrates. Multiple adhesion tests should be performed randomly to verify proper application of primer and ensure a successful application.

Detailing:

All vertical-to-horizontal transitions must have a ¾" (19.05 mm) fillet of the Polyurethane expansion sealant. Allow to cure 12 hours before covering with the ArmorSheet® membrane. All inside and outside corners, as well as the vertical-to-horizontal

transitions, should have a minimum 9" detail strip of ArmorSheet® installed prior to the field membrane of ArmorSheet®. The ArmorDrain Protection Course or Mat Membrane Strip should be centered on corners, joints, cracks and transitions. After field membrane is installed, a sealant bead of a Polyurethane expansion sealant should all be placed over all laps at the footing/wall transition extending a minimum of 9" up the wall and 9" out over the footing. Refer to the standard detail drawings for specific detail instructions. ArmorSheet® Membrane Strip should be centered on corners, joints, cracks and transitions. After field membrane is installed, a sealant bead should all be placed over all laps at the footing/wall transition extending a minimum of 9" up the wall and 9" out over the footing. Refer to the standard detail drawings for specific detail instructions.

Vertical-Installation:

Start at the low point and work towards the high point. Remove 6"- 8" (150-200 mm) of the release paper, and then begin applying the membrane. Press and smooth the membrane against the substrate while pulling the release paper free. Roll entire membrane and laps with a hard rubber hand roller. Install membrane with side laps overlapped a minimum of 2½" (63 mm) and end laps a minimum of 5" (127 mm). Mar-flex recommends that the membrane be rolled in place immediately after its placement to ensure full adhesion to the primed substrate. Apply a bead of the Polyurethane Sealant at terminations, cut edges, T-joints, drains, penetrations. Mastic should not be installed on the underside of ArmorSheet®. For walls over 8' (240 cm), the membrane should be placed in lifts. Protect the ArmorSheet® membrane with the appropriate drainage composite, ArmorDrain Protection Course/Mat.

Horizontal-Installation:

Start at the low point (establish a starting point with a chalk line if necessary) and work towards the high point in shingle fashion. Remove 2'-3' (60 -90 cm) of the release paper and apply the membrane to the substrate. Continue pulling the release paper free while pressing and smoothing the membrane against the substrate. Apply in a straight-line avoiding wrinkles and over-correcting. Roll the membrane with a minimum 75-lb (34 kg) linoleum roller. Install membrane with side laps overlapped a minimum of 2 ½" (63 mm) and end caps a minimum of 5" (127mm). Apply the Mar-flex ArmorMastic200 at all terminations of the membrane with T-joints. Patch inadequately lapped seams and damaged areas with

ArmorSheet® membrane covering the damaged area by a minimum of 6" (150 mm). "Fish-mouths" and severe wrinkles should be slit, flaps overlapped and repaired as above. Protect the ArmorSheet® membrane with the appropriate ArmorDrain drainage composite or Protection Course. For non-standard installation instructions contact your local Mar-flex representative.

Detail Requirements:

For standard installation details follow the ArmorSheet® details drawings. For non-standard installation instructions contact your local Mar-flex representative.

Limitations

Do not apply where membrane will be subject to continuous exposure to sunlight. Do not apply primer or membrane to a damp, frosty, frozen, or contaminated surface. Not recommended as a pond or tank liner except for between-slab applications. Do not apply over sealants containing coal tar or polysulfides. In the event of existing bitumen-modified materials, consult your Mar-flex representative. Store upright in original, unopened sealed packing in dry conditions. 1yr Shelf Life

Warnings and Hazards

Primers, Mastics and Sealants may contain flammable and combustible solvents. Avoid exposure to open flame or spark. Avoid breathing vapors. Use only in areas with adequate ventilation. Refer to SDS for important warnings and product information.

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Product/Technical Data

Property	Method	Results
Color	—	Dark Gray/Black
Thickness	ASTM D3767	40 mils
Tensile MD Tensile CMD	TN-07	34.5 lbf/in 43.5 lbf/in
Elongation MD Elongation CMD	TN-07	160% 109%
Low Temp. Flexibility	ASTM D1970	Pass/Unaffected
Crack Cycling	ASTM C836	Pass/Unaffected
Adhesion in Peel	PA180-05	18.5 lbf/in@73°F
Water Absorption	ASTM D570	0.18% by wt
Temperature Application Range	—	≥35°F/1.7°C +
Roll Size/Information	—	36"x 75' - 225 sqft 25 Rolls/Pallet 59 lbs/Roll

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.

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 for extended warranty periods.

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