

# Strataflex Waterproofing Membrane Installation Sheet

National Applied Construction Products, Inc. • 800-633-4622 • Fax: 330-644-3557 • [www.NACproducts.com](http://www.NACproducts.com)  
Important: Proper installation of this system requires use of the appropriate primers and companion products. Read and understand Product Data (PDS) and Material Safety Data (MSDS) for all products prior to installation.

## Suitable Substrates

**Concrete:** Poured, pre-stressed and pre-cast concrete. Concrete backerboard, mud beds, gypsum, lightweight concrete and patching compounds.

- Some concrete boards are not suitable for the application of Strataflex Membrane; check with manufacturer.

**Wood:** Exterior or exposure 1 plywood, APA-rated sheathing, Sturd-I-Floor, hardwood, tongue and groove and OSB with standard face. (Gap between sheathing as required.)

**Other Substrates:** Ceramic and porcelain tile, stone, terrazzo, VCT/VAT, metal, radiant-heated, painted and sealed floors and floors damaged by dry shrinkage and structural movement.

## Surface Preparation

Surfaces must be level, structurally sound and meet 1/360 for ceramic and porcelain tile or 1/720 for stone tile on live or dead loads. Maximum variation of 1/4" in 10' from the required plane. Refer to TCNA Handbook.

- DO NOT** install membrane under mortar beds or leveling and patching compounds.
- DO** install membrane over cured mortar beds, leveling and patching compounds.
- Surfaces must be clean, dry and free of holes, projections, moisture or bond breakers such as waxes, petroleum based sealers, dirt, grease or oil.
- Grind bumps and level slab depressions with quality latex underlayment in accordance with manufacturer's instructions. Scarify smooth surfaces.
- Ensure joist spacing consists of no more than 16" on center and a double sub-floor consists of at least 5/8" per sheet.
- Perform Black Mat MVT (Moisture Vapor Transmission) test to determine if moisture is present.
  - If no MVT is present, proceed to the next step of the installation process.
  - If MVT is present, conduct a Relative Humidity Test or F-1869-98 test for emissions. If MVT is in excess of 3#/1000SF/24HRS or has an R.H. greater than 85%, call NAC for instructions.
  - For absorptive substrates, up to three coats of Moisture Lock 101® may be applied according to manufacturer's instructions.

(see Moisture Lock 101® PDS for complete information)

- A cementitious parge coat applied to concrete block must be allowed to cure for 24 hours prior to applying primer.
- A successful overnight bond test is required. A bond test determines if the membrane system will successfully adhere to the substrate.
- Not recommended for vertical or overhead surfaces
- Refer to current TCNA handbook for additional guidelines.

## Installation

- Measure and pre-cut membrane 4"-6" longer than required size. Re-roll membrane to half the room's depth. For sloped areas, position first sheet of membrane in lowest area with overlap strip on high side. Additional rolls shall overlap prior sheets, similar to shingles on a roof.
- Primer should be applied with a short nap roller, brush applicator or sprayer. Substrate temperature should be a minimum of 65°F.


(Refer to the primer reference chart for appropriate application)

- NAC TAC or NAC TAC II** should be applied with a short nap roller, flat trowel, brush applicator or sprayer. Substrate temperature should be a minimum of 65°F.
  - Shake, mix or stir primer thoroughly.
  - Prime only an area that will be covered by membrane within 1-4 hours. Apply a thin film of uniform thickness to substrate in single strokes. **Do not re-roll primer.**
  - Allow primer to dry until tacky to touch, but non-transferable to finger. This may take as little as 10 minutes, but usually no more than 45 minutes, depending upon temperature, humidity, internal moisture level/porosity of substrate and application thickness. Air pockets may form if membrane is installed over wet primer.

(See NAC TAC or NAC TAC II label for additional information.)

- NS97** is for **Exterior Use ONLY** and should be applied with a short nap roller, brush, or sprayer. Substrate temperature should be a minimum of 55°F.
  - Mix or stir primer thoroughly.
  - Prime only an area that will be covered by membrane within 1-4 hours. Apply a thin film of uniform thickness to substrate in single strokes. Do not re-roll primer.
  - Air pockets may form if membrane is installed over wet primer. Allow primer to dry until tacky to touch, but non-transferable to finger. This may take as little as 10 minutes, but usually no more than 45 minutes, depending upon temperature, humidity, internal moisture level/porosity of substrate and application thickness.

(See NS97 label for additional information.)

	INTERIOR APPLICATION			EXTERIOR APPLICATION		
	Below Grade	On Grade	Above Grade	Below Grade	On Grade	Above Grade
NAC TAC	✓	✓	✓	✓	✓	✓
NAC TAC II		✓	✓			
NS97				✓	✓	✓

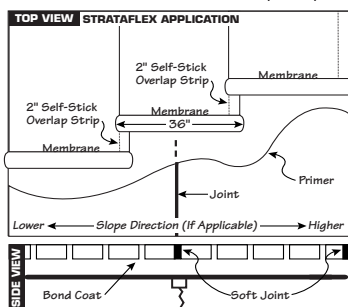
Reference the PRIMER PDS SHEET for complete information of NAC Products, Inc. primers.

- Slit release paper and remove, allow membrane to roll out, adhesive-side down, across primed floor. Do not remove protective film from 2" overlap area on top of membrane.
- Position next membrane sheet over protective film on first sheet. Remove film and press seam together. Use 6" Seam Tape for butt-jointed end seams and other areas without an overlap strip. Trim Tape to desired length and install 3" beneath and perpendicular to membrane. Overlap remaining 3" with next membrane sheet. Seal termination points with SubSeal® Liquid or NAC Polyurethane Sealant.
- Press Membrane into place with flat side of trowel applying 50 lbs. of pressure/sq. inch or a 75-100# roller. If air pockets occur, wait and reinspect the next day. If they remain, place a small slit in the affected, smooth out with a roller or trowel and coat with SubSeal® or Polyurethane Sealant.



**Design Detail:** Overlap sides of 36" **Strataflex** with 2" overlap strips.

Butt-joint ends of membrane and install 6" Seam Tape at end seams. Seal termination points with SubSeal® or NAC Polyurethane Sealant. Placement of control joints may be ignored. Isolation joints, such as around weight bearing columns and expansion joints placed for vertical movement need to be carried through to tile installation. Soft joints in tile patterns are required as per TCNA Handbook method EJ-171.



## Exterior Waterproofing

**Balcony and Deck Treatment:** Prior to installation, follow TCNA method F103 and/or F104. Substrate must be sloped min. 1/4" per ft. to ensure proper drainage.

1. Follow **Strataflex** general installation guidelines.
2. Unexposed decks do not require the additional coat of SubSeal®
3. Exposed decks over living spaces require the NAC Extreme Deck System which is a combination of **Strataflex** sheet membrane and SubSeal® liquid membrane.
4. Apply one (1) coat (20mil wet) of SubSeal® Liquid Waterproofing Membrane on top of **Strataflex**. Refer to SubSeal® installation instructions for more detail.
5. All corners and flashing shall be treated with NAC preformed corners or Seam Tape. Refer to water proof treatment details for additional information.
6. Install Polyurethane Sealant to all termination points of the membrane.
7. Install setting materials & finished surface.

**Patio, Walkway & Pool Decks:** (on grade applications) Prior to installation, refer to TCNA method F101. Slope substrate to provide complete surface drainage.

1. Follow **Strataflex** general installation guidelines.
2. Install setting materials & finished surface.

## Waterproof Treatment Details

**Base & Wall Treatment:** Turn **Strataflex** up wall to flood point or plan height. Position membrane with desired amount of upturn and crease to provide a tight corner. With membrane still in place and with release paper attached, fold in half lengthwise to face wall. Carefully cut release paper at fold and pull toward you to expose and unroll membrane. Follow same procedure in opposite direction with other half of membrane. Carefully crease membrane at the wall with the flat side of trowel.

**For casual water areas:** membrane shall be butt-jointed to the wall and caulked with NAC polyurethane sealant or coated with SubSeal® Liquid Waterproofing Membrane.

**For water containment areas and Exposed Decks and Balcony:** flash **Strataflex** up wall to desired height. On adjacent wall, apply NAC 6" Seam Tape up wall to desired height. Overlap **Strataflex** over Seam Tape. Exposed decks over living spaces require the NAC Extreme Deck System which is a combination of **Strataflex** sheet membrane and SubSeal® liquid membrane.

**Corner Treatment:** Lightweight, preformed inside (PFI) and outside (PFO) corners are also available. PFI and PFO corners are made of a strong breathable fabric that is used in conjunction with SubSeal® Liquid Waterproof Membrane. See PDS and Install Sheets for information and instructions.

**Drains and Protrusions:** Follow TCNA recommendations and ANSI standards. Drains are required to have clamping ring to fasten membrane to drain base. A slope of 1/4" per foot must be met prior to installation of membrane to negate standing water.

1. Remove clamping ring and strainer, leaving the drain base exposed.
2. Install **Strataflex** over drain base per membrane general installation instructions.
3. Press membrane in place, making sure to outline drain opening. Assure adequate bond between base and membrane.
4. Carefully cut for drain opening and punch holes for clamping ring bolts through membrane.
5. Reset clamping ring and strainer to desired height. Install thin-set and tile.

## Interior Floors Using Tile Setting Materials

When installing porcelain, ceramic and decorative stone tile or related products, a thin-bed, latex-modified mortar, meeting a minimum material specification of ANSI A118.4 or better is required. Apply membrane over level coats, mortar and mud beds. Key setting material into membrane with flat side of trowel. Re-apply mortar with notch side of trowel using minimum trowel size of 1/4" x 3/8". Contact tech support for trowel size when using organic adhesives and epoxy mortars suitable for ceramic tile applications.

## Wood & VCT Installations

Due to the nature of the overlap joint on **Strataflex** membrane, the overlap joint may transfer through the finished VCT. We recommend using ECB membrane in these applications. If additional sealing is desired then apply SubSeal® Liquid Waterproofing Membrane over seams. When installing wood or VCT over membrane, a solvent free or urethane glue/adhesive must be used. Follow general membrane installation instructions.

## Cautions

- Not recommended for use on concrete floors with excessive hydrostatic head pressure or excessive moisture vapor transmission above 10#/1000SF/24HRS when used with NAC TAC or NS97 Primer.
- Protect floors from traffic until new floor is fully cured.
- Membrane and companion products must be protected from the elements and UV rays until tile is installed, grouted and cured.
- **DO NOT** install membrane under mortar beds, leveling and patching compounds. **DO** install membrane over cured mortar beds, leveling and patching compounds.
- Do not use petroleum-based cleaners or sealers for tile, marble, stone or grout.
- Large format tile installations may require extended cure times.
- Impervious tile (less than 0.5% absorption) requires a 48 hour cure time prior to grouting.
- Protect floors from heavy construction equipment during installation to prevent damage.
- Not recommended for vertical applications. Use SubSeal® Liquid Waterproof Membrane in place of sheet membrane.
- Movement joints must be installed in finished tile system per TCNA method EJ171.

**Interior:** 20' to 25' in each direction. If exposed to direct sunlight or moisture then 8' to 12' in each direction.

**Exterior:** 8' to 12' in each direction.

**See NAC TAC, NAC TAC II and NS97 primer labels and SDS for additional instructions on use, storage and disposal.**

**Visit [www.NACproducts.com](http://www.NACproducts.com) or contact NAC Products at 800-633-4622 with any questions and for additional information.**