

# INSTALL ECB™ Green Anti-Fracture Membrane®

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**IMPORTANT:** Proper installation of this Membrane System requires use of the appropriate Primers and Companion Products.

Read and understand Product Data (PDS) and Material Safety Data (MSDS) Sheets for all products prior to installation.

## Surface Preparation:

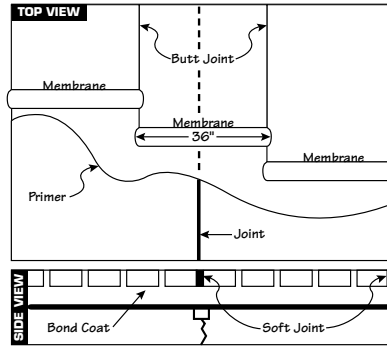
- Refer to PDS for suitable substrates. Surfaces must be level, structurally sound and meet 1/360 for ceramic and porcelain tile or 1/720 for stone tile on live or dead loads. Maximum variation of 1/4" in 10' from the required plane.
- Grind bumps and level slab depressions with quality latex underlayment in accordance with manufacturer's instructions. Surfaces must be free of holes, projections, moisture or bond breakers. 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. If MVT is present, conduct F-1869-98 test for emissions. Contact NAC for instructions if MVT drive is in excess of 3#/1000SF/24HRS.
- Apply cementitious parge coat to concrete block and allow to cure before installation.
- Apply Moisture Lock 101™ to highly porous surfaces such as mud beds, gypsum/gypcrete, lightweight concrete and patching/leveling compounds. Allow Moisture Lock 101™ to cure 24 hours prior to applying Primer.
- A successful overnight Pull Test is required. Visit NACproducts.com for more information.

## Installation:

- All installations begin with a clean, dry floor. Substrates must be well adhered and clean of wax, petroleum sealers, dirt, grease, oil or other bond-breakers.
- Measure and pre-cut membrane to 4"-6" longer than required size. Re-roll membrane to half the room's depth.
- Apply NAC TAC, NAC TAC II Interior Primer or NS97 Exterior Primer:
  - NAC TAC or NAC TAC II** should be applied with a short nap roller, flat trowel, brush applicator or sprayer. Substrate temperature should be at least 65°F.
  - NS97** should be applied a short nap roller, notched trowel (no larger than 1/16" x 1/32" x 1/32") or paintbrush. Substrate temperature should be at least 55°F.
    - Shake, mix or stir Primer thoroughly.
    - Prime only an area that will be covered by Membrane within four 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, depending upon temperature, humidity, internal moisture level/porosity of substrate and application thickness. See NAC TAC, NAC TAC II or NS97 label for additional information.
- Slit release paper and allow membrane to roll out, adhesive-side down, across primed floor.
- Press Membrane into place with flat side of trowel applying 50 lbs. of pressure/sq. inch or a 75-100# Roller.

## Full Floor Coverage Application:

Butt joint 36" ECB™ Green Anti-Fracture Membrane or overlap and single

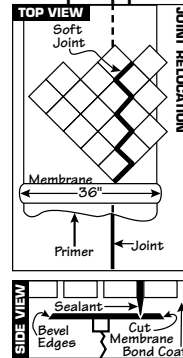


cut through to remove excess. For end seams, continue with next roll and butt joint ends. Membrane is non-directional.

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

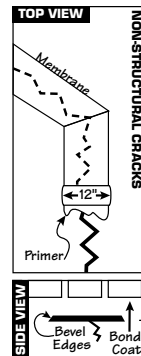
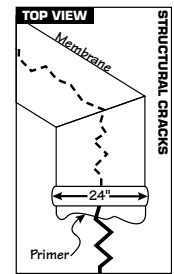
tile installation. Soft joints in tile patterns are required as per TCA Handbook.

## Strip Applications:

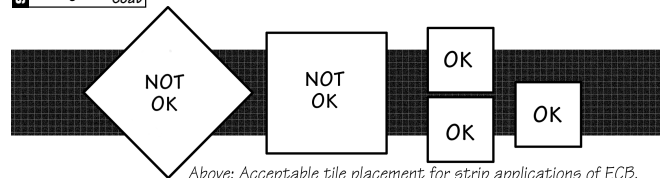


**Joint Relocation:** 36" ECB™ Green Anti-Fracture Membrane may be placed over control/saw-cut joints. Offset ECB™ Green Anti-Fracture Membrane 2' to one side of joint. On 1' side of ECB™ Green Anti-Fracture Membrane, cut through membrane at tile joint closest to control/saw-cut joint. This will assure lateral movement transfer to membrane. Apply appropriate caulk to new "soft joint". Bevel ECB™ Green Anti-Fracture Membrane edges with thin-set or mortar for a smooth transition to substrate.

**Structural Cracks:** Center 24" ECB™ Green Anti-Fracture Membrane over cracks that completely penetrate slab. If crack turns, cut and butt joint ECB™ Green Anti-Fracture Membrane to accommodate direction. Bevel ECB™ Green Anti-Fracture Membrane edges with thin-set or mortar for a smooth transition to substrate.



**Non-Structural Cracks:** Center 12" membrane over non-structural cracks such as hairline shrinkage cracks. If crack turns, cut and butt joint ECB™ Green Anti-Fracture Membrane to accommodate direction. Bevel ECB™ Green Anti-Fracture Membrane edges with thin-set or mortar for a smooth transition to substrate.



Above: Acceptable tile placement for strip applications of ECB.

### Exterior and Wet Area Applications

All joints and termination points of the Membrane must be sealed with 1/4" bead of NAC Approved Sealant. Smooth out sealant with flat side of trowel and let cure.

### In-Floor Heating Systems

Use ECB™ Green Anti-Fracture Membrane System, full floor coverage, over in-floor, hydronic heating systems placed in poured gypsum/gypcrete or other lightweight products. Read Moisture Lock 101™ Product Data and Installation Sheet. Apply NAC TAC or NAC TAC II (interior) Primer or NS97 (exterior) Primer as required and install ECB™ Green Anti-Fracture Membrane as directed. Use 118.4 or better mortar for tile installation.

### Tile Warming Systems

Use ECB™ Green Anti-Fracture Membrane, full floor coverage, over substrates where low-voltage tile warming systems are to be installed. Follow ECB™ Green Anti-Fracture Membrane Product Data and install guidelines. Secure tile warming system to Membrane as directed by manufacturer. Use 118.4 or better mortar for tile installation.

### Tile Setting Materials

When installing porcelain, ceramic and decorative stone tile or related products, a thin-bed, latex-modified mortar meeting ANSI A118.4 must be used. 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

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 moisture vapor transmission above 10#/1000SF/24HRS or excessive hydrostatic head pressure.
- Protect floors from traffic until new floor is fully cured. Large format tile installations may require extended cure times.
- 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.
- 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. .

## Application Notes for NAC TAC Primer

**Coverage:** 375-425 square feet per gallon depending upon applicator type and porosity of substrate.

**Clean-Up:** Remove wet NAC TAC or NAC TAC II with a damp cloth and plain water. Use Mineral Spirits for dried Primer.

- NAC TAC and NAC TAC II Primer is not freeze/thaw stable. Do not store below 35°F. If NAC TAC or NAC TAC II separates, shake to remix. If product will not remix, do not use.
- Due to increased adjustability of Primer bond to Membrane, a pull test, if needed, should be delayed 24 hours. A permanent bond is established in 48 hours.

## Application Notes for NS97 Primer

**Coverage:** 300-400 square feet per gallon depending upon applicator type and porosity of substrate.

**Clean-Up:** Tools, equipment and spillage may be cleaned up with Mineral Spirits.

**Spill or Leak Procedures:** Contain spill if possible. Wipe up or absorb with suitable material and shovel up. Prevent entry into sewers and waterways.

- Do not use over copper shower pan liners. Application equipment must be compatible with chlorinated solvents. Avoid contact with aluminum, copper, copper alloys or polystyrene foam. May damage painted surfaces, vinyl and plastics. Test a small area for damage before use.
- Make sure the area is well-ventilated. Prevent vapor buildup by providing fresh air to maintain levels below exposure limits. Open windows and doors or use other means to ensure continuous movement of fresh air and cross ventilation during application and drying. Vapor is heavier than air and will collect in low areas. Do not use in basements or other poorly ventilated areas. Wear a NIOSH approved self-contained breathing apparatus or other approved respiratory protection device if use conditions generate vapors at a level in excess of recommended exposure limits.
- Avoid skin contact. Wear gloves. Wear eye protection and side shields. Contact with flame or hot surfaces may produce toxic gases. Do not smoke.

**IMPORTANT:** See NAC TAC, NAC TAC II and NS97 Primer labels and MSDS for additional instructions on use, storage and disposal.

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