

# Technical Guide and Installation Instructions





Now, its easy being green.

**Manufacturer**

Southern Cross Technologies  
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 Boynton Beach, FL 33426  
 Information: 561.932.0300

**Product Description**

**GreenEboard™:** A building panel manufactured from a proprietary formula including Magnesium OxyChloride blends, perlite, reinforcing mesh, and recycled wood dust. Product contains no silica dust.

**Uses**

Product is suitable for use as a tile backer on countertops, walls and floors, where a durable, environmentally friendly installation is required.

Product can also be used as a wall board in limited applications, replacing products that are susceptible to the growth of mold and mildew. It is successfully used in homes for individuals with MCS (multiple chemical sensitivities).

**Sizes**

**NOMINAL DIMENSIONS**

| Width | Length | Thickness    | Weight     |
|-------|--------|--------------|------------|
| 36"   | 60"    | ¼" (6 mil)   | 1.2 lbs/SF |
| 48"   | 48"    | ¼" (6 mil)   | 1.2 lbs/SF |
| 48"   | 96"    | ¼" (6 mil)   | 1.2 lbs/SF |
| 36"   | 60"    | ½" (12 mil)  | 2.3 lbs/SF |
| 48"   | 48"    | ½" (12 mil)  | 2.3 lbs/SF |
| 48"   | 96"    | ½" (12 mil)  | 2.3 lbs/SF |
| 48"   | 96"    | 1/8" (3 mil) | .60 lbs/SF |

| PHYSICAL PROPERTIES                 |                          |   |                     |
|-------------------------------------|--------------------------|---|---------------------|
| Property                            | Method                   | ½"  | ¾"                  |
| Mold/Fungus                         | ASTM D3273               | 0 *                                       | 0 *                 |
| Flame*                              | ASTM E84                 | Class 1<br>Class A*                       | Class 1<br>Class A* |
| Smoke*                              | ASTM E84                 | Class 1<br>Class A*                       | Class 1<br>Class A* |
| Combustibility*                     | BS EN1182                | Class1A*                                  | Class1A*            |
| Floor System                        | ASTM C627                | Extra Heavy*                              |                     |
| Formaldehyde                        | EN120                    | 0*  | 0*                  |
| Asbestos                            | NIOSH9002                | 0*  | 0*                  |
| Weight/SF                           | (nominal)                | 2.3 lbs                                   | 1.2 lbs             |
|                                     |                          |   |                     |
| <b>½"</b><br><b>characteristics</b> |                          | Result                                    | Requirement         |
| Sound                               | ASTM E90<br>Wall system  | STC 31<br>STC 47                          |                     |
| Thermal                             | ASTM C-518-04            | 1" R = .493 (°F<br>ft <sup>2</sup> h.BTU) |                     |
| Squareness                          | CCMC 6.4.3               | 0 mm<br>deviation                         | ≤ 2                 |
| Length Tolerance<br>Width Tolerance | CCMC 6.4.2               | -3<br>-1                                  | ± 3                 |
| Humidified<br>Deflection            | CAN/CSA-<br>A82.20.3-M91 | 1 mm                                      | ≤4                  |
| Flexural<br>Strength, Wet           | ASTM C947-89             | 3.14 MPa                                  |                     |
| Thickness<br>tolerance mm           | CCMC 6.4.1               | .6  | ≤1.6                |
| Hardness, N<br>Core<br>End<br>Edge  | CAN3-0188.0-<br>M78      | 2674<br>2483<br>2438                      | ≥2200               |
| Max. Moisture<br>Absorption         | ASTM C 1185              | 27%/24 hrs<br>29%/48 hrs                  |                     |
| Fastener Pull<br>Through            | CAN/CSA-<br>A82.20.3-M91 | 958                                       | ≥320                |
| Fastener Lateral<br>Resistance      | ASTM D 1037-<br>93       | 720 dry<br>558 wet<br>481 aged            | ≥400                |
| Humidified<br>Deflection            | CAN/CSA-<br>A82.20.3-M91 | 1mm                                       | ≤4mm                |
| Impact-Fracture<br>point            | CCMC 5.1.2               | 5 ft.lb. load                             |                     |
| Impact-<br>Indentation              | CCMC 5.1.2               | .66 dry<br>indentation                    | ≤1                  |
| Impact-<br>Indentation              | CCMC 5.1.2               | .71 wet<br>indentation                    | ≤1                  |
|                                     |                          |   |                     |



\*Highest Possible Rating

## INSTALLATION GUIDELINES

### Materials Needed:

For tub and shower applications, apply ½” GreenEboard™ directly to studs, over a vapor barrier. Always use a vapor barrier in wet areas.

### Fastener Schedule:

| Location           | Structure                            | Type/Length  | Spacing   |
|--------------------|--------------------------------------|--|---|
| Wall or Ceiling    | Steel Framing                        | Corrosion resistant 1-1/4” bugle head tapping screw  | 6” O.C. on wall frame<br>6” O.C. on ceiling joist |
| Wall or Ceiling    | Wood Framing                         | Corrosion resistant 1-1/4” bugle head, coarse thread, self-drilling screw                              | 6” O.C. on wall frame<br>6” O.C. on ceiling joist |
| Wall or Ceiling    | Wood Framing                         | Galvanized 7 d or 8 d framing nails  | 6” O.C. on wall frame<br>6” O.C. on ceiling joist |
| Floor Counter-top* | Wood Framing L/360 structural rating | Corrosion resistant 1-1/4” bugle head, coarse thread, self-drilling screw, or 7d or 8d galvanized nail | 8” OC in both directions throughout field         |

\*For Countertops, follow floor fastener spacing schedule using minimum 1” length screws or 5d

### Installing GreenEboard™ on Walls and Ceilings

For Walls and Ceilings which will be receiving a ceramic, porcelain, or stone tile finish, stud spacing shall be no more than 16” O.C. If ceiling joists are at 24” O.C. then provide blocking between joists.

GreenEboard™ has a smooth face and a rough face. Apply with the rough face out for tile installation. If some area of GreenEboard™ will not be covered with tile, apply with the smooth face out. Adhesives and latex modified mortars will bond effectively with either face.

In wet locations, apply a vapor barrier over the framing members.

Measure and mark GreenEboard™ to fit the space to be covered. Using a straight edge or T square, score the board with a conventional utility knife. Snap the board along the cut, and then score the back side with the utility knife. Reverse snap if necessary.

Fasten GreenEboard™ with recommended fasteners as described in the fastener chart. Drive fastener heads flush with surface of board.

Fill all joints between boards and in corners with material to be used as adhesive. Embed 2” wide alkali resistant mesh joint tape in the adhesive or mortar over all joints. Allow joints to cure before applying tile.

Caulk joints at tub or shower edge with a mold-resistant caulk.

### **Installing GreenEboard™ on Floors**

For the strongest installation, rated “Extra Heavy” under ASTM C-627, use ½” GreenEboard™. ¼” GreenEboard™ is suitable for use in residential bathrooms and kitchens where heavy equipment is not regularly moved across the floor.

For both ½” and ¼” GreenEboard™ follow the fastener schedule on the previous page. Fasteners should be no closer to the edge of GreenEboard™ than ¾” for floor installation.

Ensure plywood subfloor and floor structure is sound. Replace any loose, warped, uneven or damaged sections of floor. Use minimum 5/8” exterior grade plywood or 23/32” exterior grade OSB, complying with local building codes and ANSI A108.11.

Ensure that floor is clean, flat, and level. The floor must be engineered not to exceed the L/360 deflection criteria, including live and dead design loads for the specific joist spacing used. Review local building codes for specifications on structural strength of floors.

Spread with a ¼” x ¼” notched trowel a bed of firm mixed, latex modified, dry set mortar between sub-floor and GreenEboard™. (Mortar should comply with ANSI A118.1)

Score and snap GreenEboard™ to fit the installation space. Lay GreenEboard™ over mortar bed, staggering joints. Avoid placing GreenEboard joints directly over plywood joints. Leave ⅛” to ¼” gap at all perimeter edges.

Fasten GreenEboard following the fastener schedule for floor installation.

Fill completely all joints except perimeter with the same mortar used as the setting bed. Spread a 4 “ wide bed of mortar over the joints and embed 2” wide alkali resistant fiberglass tape in the mortar. Allow mortar to dry before installing tile. Tile must be installed with latex modified mortar.

### **Installing GreenEboard™ on Countertops**

Install minimum ½” exterior grade plywood or OSB board over cabinets. Provide blocking supports under joints and every 16”. If using ¾” plywood, provide supports every 24”.

For both ½” and ¼” GreenEboard™ follow the fastener schedule on the previous page. Fasteners should be no closer to the edge of GreenEboard™ than ¾” for countertop installation.

Spread with a ¼” x ¼” notched trowel a bed of firm mixed, latex modified, dry set mortar between plywood and GreenEboard™ OR use the same tile-setting adhesive to be used for the tile installation. (Mortar should comply with ANSI A118.1)

Score and snap GreenEboard™ to fit the installation space. Lay GreenEboard™ over mortar bed, staggering joints. Avoid placing GreenEboard joints directly over plywood joints. Leave ⅛” gap where countertop meets vertical surfaces.

Fasten GreenEboard following the fastener schedule for countertops.

Fill completely all joints except where countertop meets vertical surfaces with the same mortar used as the setting bed. Spread a 4 “ wide bed of mortar or adhesive over the joints and embed 2” wide alkali resistant fiberglass tape. Allow mortar or adhesive to dry before installing tile.

## INSTALLATION DIAGRAMS

Not to scale

### FLOOR INSTALLATION

GreenEboard fastened over subfloor per instructions in this guide. Use latex modified mortar only.

Fill joints with mortar, embed 2" alkali-resistant tape in mortar

Floor structure  
Minimum L/360

Embed  
GreenEboard™ in  
latex modified mortar

### WALL INSTALLATION

GreenEboard™ applied per instructions, red indicates vapor barrier

Wood or steel frame wall

Tub or Shower ledge

### COUNTERTOP INSTALLATION

Countertop tile

GreenEboard™ per instructions

Plywood per instructions

Cabinet

Wall Structure



Now, its easy being green.

## **STORAGE AND HANDLING**

GreenEboard™ may be stored indoors or outdoors. When storing outdoors, a waterproof cover is recommended. Store flat and level, on pallets that fully support the entire sheet. If GreenEboard™ is exposed to rain or snow, dry the sheets of material before installation for best results.

GreenEboard™ contains no harmful toxins. However, all construction dust is an irritant to mucous membranes and eyes. Use proper dust protection equipment when cutting and fastening GreenEboard™. See the MSDS at <http://www.GreenEboard.com> for more details.

## **WARRANTY**

GreenEboard™ has a transferrable warranty. Contractors should record and provide to building owners the purchase date and other pertinent information to obtain full warranty coverage. Details of the warranty may be found at <http://www.GreenEboard.com>

