

# WATER DRAINAGE PRODUCTS

## SOPRADRAIN™

SOPRADRAIN 100, 102/102PF, 104/104PF,  
ECOVENT, ECOVENT 2 AND SOPRADRAIN TD

SOPRADRAIN drainage panels may be installed in a variety of construction applications, including against retaining walls, foundation walls (both waterproofed and non-waterproofed), and soil retention systems. SOPRADRAIN can be cut with scissors or a utility knife and is flexible enough to bend around inside and outside corners. Concrete, shotcrete and cement slurries can be placed directly onto either side of the drainage panels. The drainage panels can terminate at the top of the footing and are flexible enough to form right angles to cover the top of the footing. SOPRADRAIN drainage panels eliminate the need for a protection course over waterproofing systems. Native soils can be used over SOPRADRAIN drainage panels. Refer to SOPREMA standard details for additional SOPRADRAIN applications, found on our website at [www.soprema.us](http://www.soprema.us).

### FOUNDATION WALLS/VERTICAL APPLICATIONS SOPRADRAIN 100 AND 102/102PF, ECOVENT AND ECOVENT 2

SOPRADRAIN drainage panels can be installed in rows or columns, with the fabric side facing the soil. Each method has its advantages, depending on the criteria of the project.

#### Installing SOPRADRAIN in Columns

1. Start at the low point of the wall and attach the panel to the wall using an adhesive, or mechanical attachment, at the top above grade, and protect with a metal counter flashing.
2. Adjacent panels should be joined together, with the lateral edge of the connecting panel placed over the flanged edge of the previous panel. The fabric from the adjacent panels should overlap the preceding panel. The fabric can be adhered with SOPRASEAL SEALANT, COLPHENE BARR FLASHING, SOPRASEAL STICK FLASHPRO, butyl tape, duct tape, or an approved adhesive. The top, or terminal, edge of SOPRADRAIN should be sealed by wrapping filter fabric to the back side of the panel, and if there is insufficient fabric, cut the core out from the fabric by a depth of 3 dimples to provide excess fabric for

# APPLICATION GUIDELINES

wrapping behind the core. This will prevent soil or other foreign construction materials from intruding into or behind the panels.

#### Installing SOPRADRAIN in Rows

1. Place the longitudinal edge of the core against the wall so that it is flush with the wall or footing.
2. Attach subsequent panels in shingle fashion with fabric overlap at bottom, placing the longitudinal edge of the upper panel over the flanged longitudinal edge of the lower panel and lap fabric from upper panel over lower panel.

#### Attachment Method Over Waterproofing

SOPRADRAIN can be attached using SOPRASEAL SEALANT, COLPHENE BARR FLASHING, two-sided tape, or an approved adhesive over the entire surface of the waterproofing membrane, then mating the two surfaces together. SOPRADRAIN will be permanently secured when backfill is installed and should be placed as soon as possible. The backfill should extend approximately 6 in (15 cm) above the top edge of the SOPRADRAIN.

#### Attachment Method with No Waterproofing

SOPRADRAIN should be attached to non-waterproofed walls with concrete nails, mechanical fasteners, SOPRASEAL SEALANT, COLPHENE BARR FLASHING, two-sided tape, or approved adhesive. SOPRADRAIN will be permanently secured backfill is installed and should be placed as soon as possible. The backfill should extend approximately 6 in (15 cm) above the top edge of the SOPRADRAIN.

#### Attachment Method for Soil Retention Systems

SOPRADRAIN should be secured with the appropriate fasteners and washers compatible with the substrate, i.e. concrete, masonry, wood, or soil. Prevent concrete from flowing into the core between the laps of SOPRADRAIN by sealing the laps on the backside of the panel with a strip of COLPHENE 3000, SOPRASEAL STICK 1100T, SOPRASEAL STICK FLASHPRO, or duct tape. Sealing the backside of the panel is not necessary if a waterproofing membrane is applied over the SOPRADRAIN prior to pouring concrete or shotcrete. Voids in the soil or lagging that exceed 2 in (50 mm) must be filled to provide support for SOPRADRAIN.

### HORIZONTAL APPLICATIONS

#### *SOPRADRAIN 104/104PF, ECOVENT AND ECOVENT 2*

Unroll SOPRADRAIN panels, starting along the edge of the horizontal area, while folding fabric over the edge adjacent to the starting edge. On sloped surfaces, unroll in the direction of the slope. The dimples and filter fabric should face up towards the overburden. Additional panels should be unrolled and spliced to adjacent rolls.

All factory edges and/or cut edges must be covered with filter fabric to prevent intrusion of the cover material (soil, sand, concrete, etc.)

Place overburden as soon as possible, to limit SOPRADRAIN's exposure to construction traffic and intensive sunlight for extended periods of time.

### DRAINAGE COLLECTOR/DISCHARGE SYSTEM

**SOPRADRAIN TD drainage system:** Used to replace the traditional French drain and gravel for collection and discharge of ground water, and may also be installed in a variety of non-wall/building construction applications. SOPRADRAIN TD can be installed in foundation walls, retaining walls, soil retention walls, golf courses, trench drains, athletic fields, landscape areas, and parking lot road perimeters, and many other applications. SOPRADRAIN can be cut with scissors or a utility knife.

#### **SOPRADRAIN 100 Series Drainage Mats with Traditional**

**French Drain:** First install the SOPRADRAIN 100, 102/102 PF panels on the wall, turning out onto the footing approximately 12 in (30.5 cm). Place perforated collector pipe on top of the SOPRADRAIN, as required per project specifications and construction documents. For installations where a collector pipe is specified, encapsulate the collector pipe in a gravel bed and filter fabric on top of SOPRADRAIN wall panels.

#### **Foundation Wall Installation**

**Collection and Discharge:** Unroll and install SOPRADRAIN TD along the wall and on top of the footing, and attach to wall. SOPRADRAIN panels are installed above the SOPRADRAIN TD collection system. (SOPRADRAIN panels can also be extended down to the

footing, and the SOPRADRAIN TD can be placed in front of the SOPRADRAIN panels). Panels are butted, and the filter fabric is shingled. All factory edges and cut edges should be covered with filter fabric, either by overlapping edges or covering with excess fabric.

**Attachment Method:** On concrete substrates, use mechanical fasteners, i.e. nailing or powder-actuated fasteners and washers. On waterproofing substrates, use construction adhesives that are compatible with the waterproofing membrane. Dimples and filter fabric always face the backfill/soil.

Place backfill as soon as possible and in lifts, while compacting each lift. Backfill should extend at least 6 in (15 cm) over top of panels.

#### **Retaining Wall Installation with No Waterproofing Membrane**

**Collection and Discharge:** Unroll and install SOPRADRAIN TD along footing, and attach to wall for uniform collection and discharge to SOPRADRAIN TD side outlet and end outlet accessories. Use SOPRADRAIN TD splice and corner accessories to keep the SOPRADRAIN TD continuous.

SOPRADRAIN 100 series panels are installed above the SOPRADRAIN TD collection system. Panels are butted, and the filter fabric is shingled. All factory edges and cut edges should be covered with filter fabric, either by overlapping edges or covering with excess filter fabric.

**Attachment Method:** On concrete substrates, use mechanical fasteners, i.e. nailing or powder-actuated fasteners with washers. On waterproofing substrates, use construction adhesives that are compatible with the waterproofing membrane. Dimples and filter fabric always face the backfill/soil.

Place backfill as soon as possible and in lifts, while compacting each lift. Backfill should extend at least 6 in over top of panels.

### Lagging Wall and Soil Nailing Installations with Waterproofing Membrane

**Collection and Discharge:** Unroll and install SOPRADRAIN TD along footing, and attach to wall for uniform collection and discharge to SOPRADRAIN TD side outlet and end outlet accessories. Use SOPRADRAIN TD splice and corner accessories to make the SOPRADRAIN TD continuous.

SOPRADRAIN panels are installed above the SOPRADRAIN TD collection system. Panels are butted, and the filter fabric is shingled. All factory edges and cut edges should be covered with filter fabric, either by overlapping edges or covering with excess filter fabric.

**Attachment Method:** On wood substrates, attach to lagging walls with screws with washers or cap nails. On earth substrates, use anchor pins with washers. Dimples and filter fabric always face the backfill/soil.

### Strip Drain/Trench Drain Installation

Dig a 4-6 in (10.2-15.2 cm) wide trench using a standard trenching machine. The depth of the trench will depend on application and project specifications, and construction documents. When determining the depth, add an additional 3 in for coverage over SOPRADRAIN TD. Place SOPRADRAIN TD in the trench to fit against the bottom and sides of the trench. Use the native soil as the backfill and place in layers, compacting prior to adding the next layer. Continue to fill the trench until the desired height is obtained.

Connectors are also available. To connect two rolls together, use the SOPRADRAIN TD splice connector or SOPRADRAIN corner connector. After placing the connector over the two ends, use waterproof tape to keep in place. Once the SOPRADRAIN TD is placed in the trench, attach a SOPRADRAIN TD end outlet to the end of the roll to make the transition from SOPRADRAIN TD to a corrugated 4 in pipe. The SOPRADRAIN TD side outlet is used to make the line transition from SOPRADRAIN TD for collection of water along the drain length. Make sure all connectors are taped with waterproof tape.