

DELTA®-PROTEC

Professional Grade Subfloor System for Concrete Floors.

Health and Safety

- Required safety equipment: hard hat, safety boots, gloves, safety glasses.
- Always follow all safety precautions as directed by the Occupational Safety and Health Administration (OSHA-USA) or the Construction Safety Association (Canada).
- Please refer to Safety Data Sheets for all components and observe all recommended safety precautions therein.
- The general codes of practice for protection at work and instructions of the manufacturers for tools and components are to be observed at all times.

Recommended Materials

- DELTA®-PROTEC
- DELTA®-MOISTUREPROOF TAPE
- Low expansion spray foam
- Self-leveling compound (if required)
- Other materials depending on final floor material:
 - 4'x 8' plywood or OSB (minimum 7/16" thick)
 - 1/4" x 1 1/2" Tapcon® fasteners (Phillips head)
 - Silicone sealant (recommended)
 - Needle-punched geotextile (landscaping fabric)

Recommended Tools

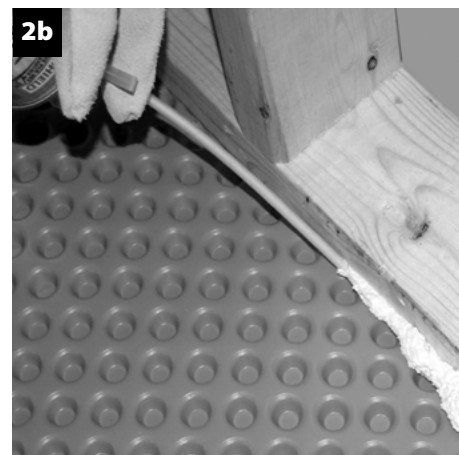
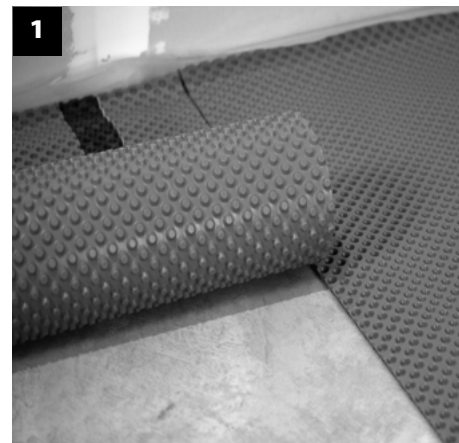
- Broom and/or vacuum cleaner
- Measuring tape
- Utility knife or scissors
- Straight edge and/or carpenter's square
- Circular saw and/or jigsaw
- Hammer drill
- Caulking gun
- Phillips screw driving bit

Preparing the Concrete for Installation

- The concrete floor and foundation walls should be dry, free of large cracks, excess moisture, leaks and flooding. DELTA®-PROTEC is not meant to replace good foundation design or maintenance.
- Any pre-existing unsound or moisture-sensitive flooring materials should be removed prior to installation of DELTA®-PROTEC.
- The floor should be as level as possible. Remove any bumps or ridges. In areas with depressions greater than 1/4", self-leveling compound should be used.
- Thoroughly clean and vacuum the concrete floor.
- Ensure floor area is solid and free of mold and fungi.
- Optional: In case of uneven floors, installing a layer of needle-punched geotextile (landscaping fabric) underneath the DELTA®-PROTEC can reduce the potential for clicking noises.

Installation

- Beginning at the longest straight wall, roll out the DELTA®-PROTEC, dimple side down and cup side up.
- DELTA®-PROTEC should be installed as tightly as possible to all walls (see Detail 1).
- For applications with stud walls already in place, lift the protective moisture barrier at the bottom and place over top of DELTA®-PROTEC (see Detail 2a).
- For applications with stud walls already in place that do not have a protective moisture barrier underneath or applications directly against the foundation wall, seal the gap between DELTA®-PROTEC and bottom plate or wall with low expansion spray foam (see Detail 2b).
- For applications without stud walls already in place, non-load bearing stud walls may be constructed on top of DELTA®-PROTEC. Load-bearing walls should not be placed on top of DELTA®-PROTEC.
- End laps and side laps shall be placed tightly to the adjacent roll of DELTA®-PROTEC. Do not overlap or interlock the dimples. Seal all end laps and side laps with DELTA®-MOISTUREPROOF TAPE (see Detail 3).



- Seal gaps between DELTA®-PROTEC and any posts or penetrations with low expansion spray foam to prevent the passage of water vapor into living area.
- Access to floor drains and clean-outs must be maintained. Cut DELTA®-PROTEC around drains or clean-outs. Seal DELTA®-FL with low expansion spray foam (see Detail 4).

Carpet, Vinyl, Hardwood, or Other Floor Covering Requiring Rigid Substrate

- Place 4' x 8' sheets of minimum 7/16" OSB/ Plywood sheets over DELTA®-PROTEC.
- Pre-drill the wood sheets and the concrete according to the fastening pattern (see Detail 4).
- Apply a small amount of silicone caulking on the thread of the fasteners and into the pre-drilled hole of the wood sheets prior to installing the Tapcon® screws.
- Install 8 (eight) Tapcon® screws per sheet (see Detail 5).
- Inspect the wood sheets for areas with bounce, tapping, or squeaks. Add additional fasteners where necessary.
- Some hardwood floors are nailed to the substrate. When these types of hardwood floors are installed, ensure that the fasteners do not penetrate the DELTA®-PROTEC. Note that some hardwood floors may not be recommended for below grade use. Check with your flooring manufacturer.

- Install final floor as per manufacturer's recommendations.

Floating Laminate and Engineered Wood-Flooring Installations

- Place recommended underlayment foam over DELTA®-PROTEC as indicated by the laminate/ engineered wood floor manufacturer.
- Install the laminate/ engineered wood flooring system as recommended by manufacturer (see Detail 6).

General Notes

- Transitions: Consider any transitions from one finished flooring system to another (i.e. laminate to carpet). The elevation difference may affect your final installation.
- Material allowance: Always allow 10% to 15% extra material to accommodate doorways, cutouts and waste.
- Always follow local Building Code Requirements whenever building/renovating.

Added Warmth and Comfort

- DELTA®-PROTEC acts as a vapor barrier. An additional vapor barrier is not required on the concrete floor.
- Extruded or expanded rigid insulation boards can be installed over the DELTA®-PROTEC prior to the installation of the finished flooring.

Limitations

- Product is not designed for permanent UV exposure. Always cover as soon as possible.

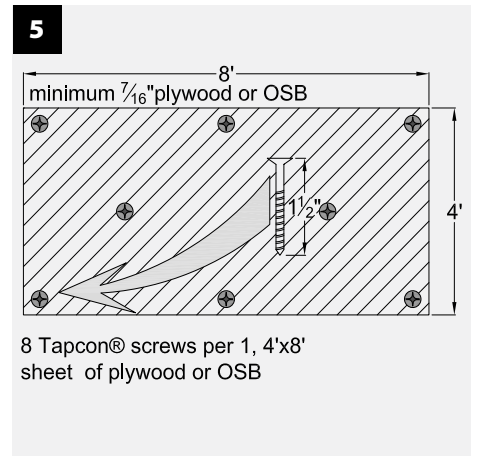
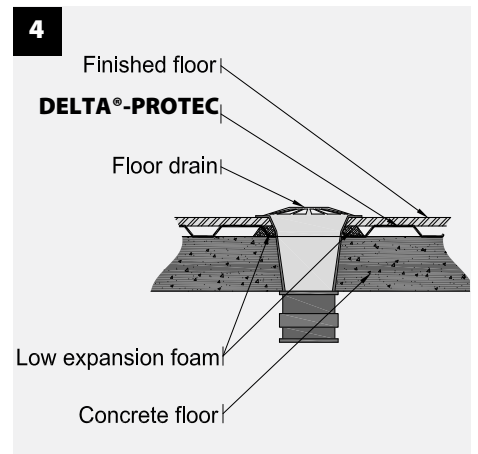
Load Considerations

- DELTA®-PROTEC features high compressive strength. Typical household items like refrigerators, billiards tables and furniture can be placed onto the finished flooring without compromising the DELTA®-PROTEC.

Disposal of Waste

- DELTA®-PROTEC is made from environmentally friendly HDPE.
- Waste can be recycled where facilities allow.

For technical support, call our Technical Support Team at 1-888-433-5824 extension 326, or visit www.dorken.com



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