Health and Safety:
- Required safety equipment: 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 Material 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®-FL
- DELTA®-MOISTURE PROOF TAPE
- Low expansion spray foam
- Self-leveling compound (if required)
- Optional 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, excessive moisture, leaks and flooding. DELTA®-FL is not meant to replace good foundation design or maintenance.
- Any pre-existing unsound or moisture-sensitive flooring material should be removed prior to installation of DELTA®-FL.
- The floor should be as level as possible. Remove any bumps or ridges. In areas with depressions greater than ¼”, 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®-FL can reduce the potential for clicking noises.
Getting Down to Installation:

- Beginning at the longest straight wall, roll out the DELTA®-FL, dimple side down and cup side up.
- DELTA®-FL 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®-FL. (see detail 2a)
- For applications with stud walls already in place that do not have a protective moisture barrier underneath, seal the gap between DELTA®-FL and bottom plate 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®-FL. Load-bearing walls should not be placed on top of DELTA®-FL.
- End laps and side laps shall be placed tightly to the adjacent roll of DELTA®-FL. Do not overlap or interlock the dimples.
- Seal all end laps and side laps with DELTA®-MOISTURE PROOF TAPE. (see detail 3)

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

- Place 4’ x 8’ sheets of minimum 7/16” OSB/ Plywood sheets over DELTA®-FL.
- Pre-drill the wood sheets and the concrete according to the fastening pattern. (see detail 5)
- 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 type of hardwood floors are installed, ensure that the fasteners do not penetrate the DELTA®-FL. 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®-FL 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®-FL 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®-FL prior to the installation of the finished flooring. For additional information, please contact our Technical Support Team.

Limitations:
- DELTA®-FL should not be exposed to ultraviolet light (sunlight) for more than 30 days.

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

Customer Support:
- For any questions not addressed in this guide for your particular installation, contact our technical support team at 1-888-4DELTA4 (1-888-433-5824) extension 326. or visit www.cosella-dorken.com.

Disposal of Waste Material:
DELTA®-FL is made out of environmentally friendly HDPE. It may be recycled where facilities allow.