

DELTA®-FL

Keeping Floors Warm & Dry.™

The perfect plastic subfloor system for concrete and slab on grade floors.

Installation Instructions

RECOMMENDED TOOLS:

- Hammer drill with drill bits of appropriate size for the recommended Tap-Con screws (check with fastener supplier)
- Utility knife or tin snips for cutting the membrane to size as required
- Cutting saw for OSB/Plywood flooring panels of 4' X 8' (cutting OSB/ Plywood panels for fit as required by installation)
- Measuring tape, caulking gun (when required by installation method)
- Straight edge for marking and cutting the DELTA®-FL as required
- Screw driving bits for drill to install Tap-Con screws as required

PREPARING THE CONCRETE OR EXISTING-FLOOR BEFORE INSTALLATION:

- Sweep the area to receive DELTA®-FL and clean all debris to ensure a clean work surface
- For concrete that is "dusting", etch the surface with a solution of 3 parts water to 1 part vinegar to remove loose concrete paste
- For areas that are experiencing damp or musty odors, wash floor with a solution of 4 parts water to 1 part bleach then rinse
- Check to ensure that any existing floor finish you want to install DELTA®-FL over is sound, and clean of loose debris

GETTING DOWN TO INSTALLATION:

GENERAL: DELTA®-FL should be installed as tight as possible to all walls and partitions

LAMINATE & OTHER FLOATING ENGINEERED WOOD-FLOORING INSTALLATIONS:

- Inspect concrete floor for level prior to installation of DELTA®-FL and use one of the following methods to level the area:
 - Floor leveling compound for areas large in size and more than 5/16" (7.94 mm) in 5 ft. (1.54 m) out of level
 - Stack (in reverse order) pieces/strips of DELTA®-FL as shims under low area to make level (see Illustration 1)
- Previously installed sound finish flooring on concrete slabs does not need to be removed before installing DELTA®-FL
- Roll out DELTA®-FL (dimples face down), cutting "flat tab" from the first section rolled out when the standard roll product is used as tightly as possible to all walls and partitions (see Illustration 2)
- During roll out of successive sections, overlap the "flat tab" only on the rolls, avoiding interlocking dimples (see Diagram A)
- NOTE: When using the 4' x 8' (1.2 m x 2.4 m) pre-cut sheets or special sized rolls without the "flat tab", install DELTA®-FL directly, installing DELTA®-FL as tightly as possible to walls and partitions
- Tape overlap seams DELTA® Moisture Proof Tape - NOTE: Tape butt joints in pre-cut sheets and special sized rolls without "flat tab" – avoid interlocked dimples (see Illustration 3)
- Place recommended (friction/sound) foam layer over DELTA®-FL as indicated by the Laminate/Engineered Wood Floor Manufacturer.
- Install the Laminate/Engineered Wood Flooring System as recommended by manufacturer (see Illustration 6)
- As a "direct application and floating floor system" wood panels under DELTA®-FL or anchoring to the concrete is not required

Illustration 1

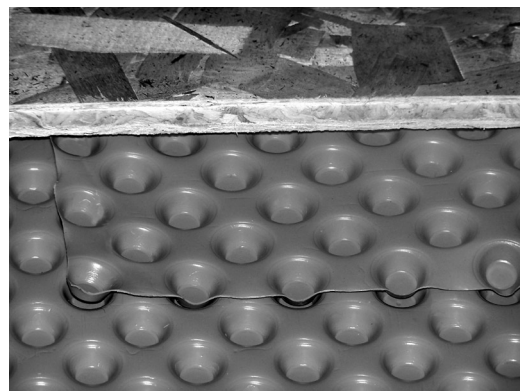


Illustration 2

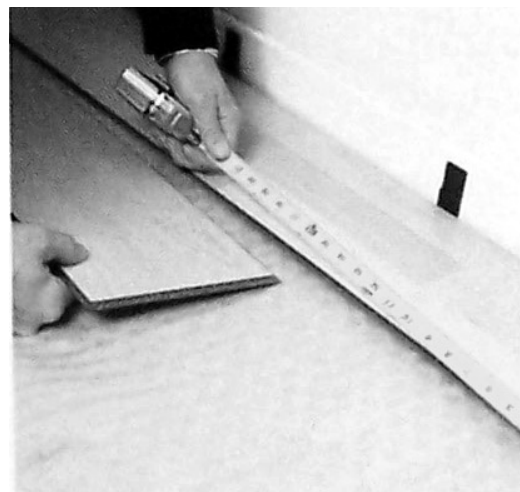


Illustration 3



DELTA®-FL

Installation Instructions *continued*

CARPET/VINYL SHEET/VINYL TILE:

- Inspect concrete floor for level prior to installation of DELTA®-FL and use one of the following methods to level the area:
 - Floor Leveling compound for areas large in size and more than 5/16" (7.94 mm) in 5 ft. (1.54 m) out of level
 - Stack (in reverse order) pieces of DELTA®-FL as shims under low area to make level (see Illustration 1)
- Previously installed sound finish flooring on concrete slabs do not need to be removed before installing DELTA®-FL
- Roll out DELTA®-FL (dimples face down), cutting "flat tab" from the first section rolled out when the standard roll product is used as tightly as possible to all walls and partitions (see Illustration 2)
- During roll out of successive sections, overlap the "flat tab" only on the rolls, avoiding interlocking dimples (see Diagram A)
- NOTE: When using the 4' x 8' (1.2 m x 2.4 m) pre-cut sheets or special sized rolls without the "flat tab", install DELTA®-FL directly, installing DELTA®-FL as tightly as possible to walls and partitions
- Tape overlap seams DELTA® Moisture Proof Tape- NOTE: Tape butt joints in pre-cut sheets and special sized rolls without the "flat tab"– avoid interlocked dimples (see Illustration 3)
- (NOTE: This application requires a firm substrate (OSB/Plywood) over DELTA®-FL prior to installing finished flooring)
- Install 4' x 8' sheets of minimum 5/8" (16mm) thick tongue and groove (T & G) OSB/Plywood panels over DELTA®-FL
- To secure 4' x 8' wood panels use one of the following methods to create a firm working surface for finish flooring installation:
 - Apply wood adhesive (PL 400) to the T & G of all wood panels during placement and 3 "H" clips at non T & G ends (see Illustration 4)
 - Pre-drill and install 1/4" (6.3 mm) diameter Tap-Con (Phillips Head) screws into both the wood panels and concrete slab, ensure that the fasteners are installed 24" (600 mm) on center, located 2" (50 mm) from panel edges, and 1 3/4" (45 mm) long, dip screw threads in caulking prior to installing in areas known to produce dampness on concrete slab surfaces for added protection (this install method is recommended for parquet wood floors, vinyl sheet/vinyl tile)
 - Pre-drill and install 1/4" (6.3 mm) diameter Tap-Con (Phillips Head) screws into both the wood panels and concrete slab along the edges of the first wood panels installed to create a secure substrate (adhere to edge clearances as described above). Complete the wood panel installation interlocking all T & G of remaining panels working across the area. Secure any wood panels that exhibit "bounce" due to an uneven slab surface by installing a Tap-Con screw at the specific location. Gluing the tongue and groove of the wood panels is not required in this installation type. (See Illustration 5)
 - For vinyl sheet and vinyl tile systems, the application of wood panels with "one good side" pre-sanded is recommended for a smooth substrate. Some manufacturers require the addition of an additional wood panel finishing sheet over the main substrate. Follow the manufacturers installation guidelines for proper installation techniques.
 - For carpet installations a "floating floor" installation of the 4' x 8' wood panels is allowed without anchoring. Follow the T & G gluing recommendation mentioned above for this application. For areas exhibiting a "bounce" in the floor due to unevenness in

Illustration 4



Illustration 5

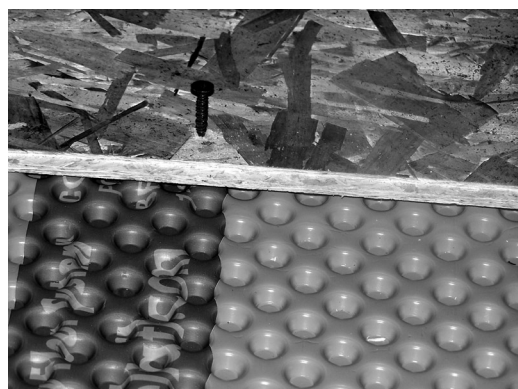


Illustration 6



DELTA®-FL

Installation Instructions *continued.*

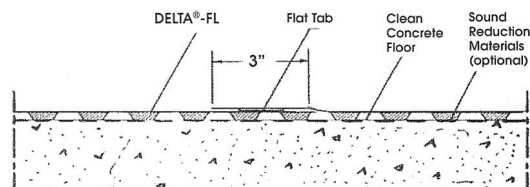
CARPET/VINYL SHEET/VINYL TILE *continued:*

- the concrete slab, install a Tap-Con screw at the specific location.
- Check with the manufacturer of the finished floor system on the appropriate substrate that is recommended

STRIP (NAILED) HARDWOOD/GLUE APPLIED ENGINEERED WOOD-FLOORING:

- Inspect concrete floor for level prior to installation of DELTA®-FL and use one of the following methods to level the area:
 - Floor leveling compound for areas large in size and more than 5/16" (7.94 mm) in 5 ft. (1.54 m) out of level
 - Stack (in reverse order) pieces of DELTA®-FL as shims under low area to make level (see Illustration 1)
- Previous sound flooring installations do not need to be removed before installing DELTA®-FL
- Roll out DELTA®-FL (dimples face down), cutting "flat tab" from the first section rolled out when the standard roll product is used, installing DELTA®-FL as tightly as possible to walls and partitions (see Illustration 2)
- During roll out of successive sections, overlap the "flat tab" only on the rolls, avoiding interlocking dimples (see Diagram A)
- NOTE: When using the 4' x 8' (1.2 m x 2.4 m) pre-cut sheets or special sized rolls without the "flat tab", install DELTA®-FL directly, installing the membrane as tightly as possible to walls and partitions
- Tape overlap seams with DELTA® Moisture Proof Tape - NOTE: Tape butt joints in pre-cut sheets and special sized rolls without the "flat tab" – avoid interlocked dimples (see Illustration 3)
- (NOTE: This application requires a solid substrate (OSB/Plywood) over DELTA®-FL prior to installing finished flooring)
- Install 4' x 8' sheets of 3/4" thick tongue and groove (T & G) OSB/Plywood panels over DELTA®-FL, allowing 1/4" space to walls
- To secure 4' x 8' wood panels use the following method to create a solid working surface for the finish flooring installation:
 - Pre-drill and install 1/4" (6.3 mm) diameter Tap-Con (Phillips Head) screws into both the wood panels and concrete slab, ensure that the fasteners are installed 24" (600 mm) on center, located 2" (50 mm) from panel edges, and 2 1/4" (57 mm) long, dip screw threads in caulking prior to installing in areas known to produce dampness on concrete slab surfaces for added protection (This install method is recommended for all Strip Hardwood and Glue Applied Engineered Finish Flooring Systems)
- Install the strip hardwood as recommended by the manufacturer, and ensure that the nails/staples used to fasten the strips down to the substrate are not longer than 1 3/4" long, and must be installed on a 45° angle to ensure the DELTA®-FL membrane is not severely punctured.
- The addition of an underlayment (ie: building paper) beneath the strip hardwood can reduce the incidence of squeaking due to rubbing of the two materials and humidity changes in the home.
- Install the glue applied engineered finish flooring system as directed by the manufacturer. Use adhesives recommended by the manufacturer for a proper bond between the wood panels and the engineered floor system.

Diagram A



GENERAL NOTES ON INSTALLATION AND CONSIDERATIONS:

- TRANSITIONS – Consider any transitions between one finish flooring system to another (ie: laminate to carpet), as the elevation difference may affect your final installation method to accommodate these changes.

DELTA®-FL

Installation Instructions *continued*

- MATERIAL ALLOWANCE – Always allow 10% to 15% extra for material quantities to accommodate doorways and overlaps
- Always follow local Building Code Requirements whenever building/renovating your project, the following is partial listing:
 - National Building Code – Canada
 - International Building Code – USA
 - International Residential Code – USA
- There may be jurisdictional requirements that differ from the main Building Codes in your area, always check with your local Building Authority for particulars

ADDED WARMTH AND COMFORT:

- Extruded or Expanded rigid insulation boards can be installed over the DELTA®-FL prior to the installation of the finish flooring
- DELTA®-FL is manufactured from HDPE (High Density Polyethylene) and does not require the application of an additional vapor barrier. The DELTA®-FL is the vapor barrier, with the added benefit of an air space for drying up any potential moisture.

LIMITATIONS:

- DELTA®-FL is a vapor barrier that does not prevent flooding and should not be used in areas of high water tables as the only form of protection – consult you local Code Authority on proper waterproofing techniques and systems in these circumstances.
- DELTA®-FL should not be exposed to ultraviolet light (sunlight) for more than 30 days.

CUSTOMER SUPPORT:

- For any questions not addressed in this guide for your particular installation, you can contact our Technical Support Team at (888) 4DELTA 4

HEALTH AND SAFETY:

- Always use proper safety equipment and procedures when doing any work that requires the use of power equipment
- Follow all safety precautions as advised by the Occupational Safety and Health Administration (OSHA – USA) or the Construction Safety Association (Canada).

DISPOSAL OF WASTE MATERIAL:

As DELTA®-MS is made out of environmentally friendly HDPE, waste can be placed in household disposal areas.

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