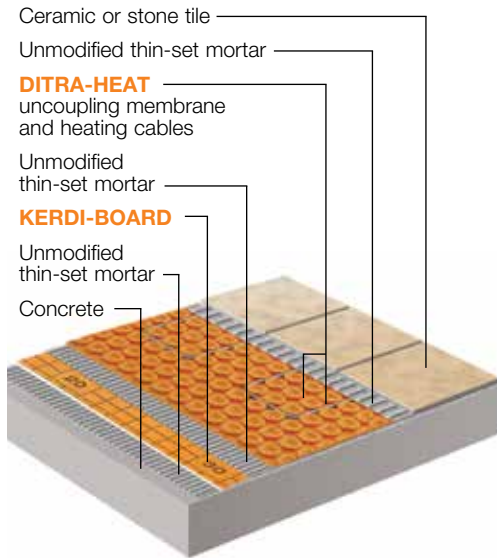


Schluter®-DITRA-HEAT

Electric Floor Warming System with Integrated Uncoupling Technology

DH-KB-C-TS-14



Floors, Interior - Ceramic or Stone Tile

Concrete subfloor, KERDI-BOARD underlayment

Areas of Application

- ▲ over any structurally sound and even concrete subfloor where a thermal break is desired to improve response time of the floor warming (e.g., concrete on grade without insulation)

Limitations

- ▲ residential applications, or those with similar traffic, only
- ▲ minimum 3" x 3" (76 mm x 76 mm) tile
- ▲ concrete slabs subject to moisture migration must have all seams in KERDI-BOARD sealed with KERDI-BAND using unmodified thin-set mortar
- ▲ any cracks in concrete subfloor must exhibit in-plane movement only; thin-set tile assemblies, including those incorporating DITRA-HEAT, cannot accommodate differential vertical displacement

Requirements

- ▲ slab to be structurally sound
- ▲ slab to be free of waxy or oily films and curing compounds (when present, mechanical scarifying is necessary)
- ▲ for young concrete, allow 14 days for the slab to cure prior to installing KERDI-BOARD

Substrate Preparation

- ▲ any leveling of the slab must be done prior to installing KERDI-BOARD

Movement Joints

- ▲ DITRA-HEAT does not eliminate the need for movement joints, including perimeter joints, within the tiled surface. Movement joints must be installed in accordance with industry standards and norms; see the Schluter®-DITRA-HEAT Installation Handbook, TCNA EJ171, and TTMAC 301 MJ

- ▲ concrete floors may incorporate various movement joints; see page 12 of the DITRA-HEAT Handbook for guidelines on how to treat different types of joints (control/contraction joints, expansion joints, etc.)

Setting and Grouting Materials

- ▲ unmodified thin-set mortar – ANSI A118.1
- ▲ grout – ANSI A118.3, A118.6, A118.7, A118.8

Setting and Grouting Specifications

- ▲ tile – ANSI A108.5
- ▲ grout – ANSI A108.6, A108.9, A108.10

Other Considerations

- ▲ KERDI-BOARD is available in panel thicknesses from 3/16" to 2" (5 mm to 50 mm) with thermal resistance from R0.9 to R9.1, respectively. The 3/16" (5 mm) -thick panels will function as a thermal break to improve response times in typical applications. Thicker panels with increased thermal resistance may be required if improving overall energy efficiency is also desired and the floor warming system is to be used for extended periods instead of limited hours during the morning and at night.
- ▲ tile may have a hollow sound when walked upon with hard shoes or tapped with a hard object
- ▲ where a waterproof floor is required, all DITRA-HEAT seams and floor/wall transitions must be sealed with KERDI-BAND using unmodified thin-set mortar; see the Schluter®-DITRA-HEAT Installation Handbook
- ▲ certain moisture-sensitive stones, e.g., green marble, or resin-backed tiles may require special setting materials. Consult stone supplier and Schluter-Systems for more information

INSTALLATION

Preparation

- The substrate must be clean, even, and load bearing. Any leveling of the subfloor must be done prior to installing KERDI-BOARD.
- Remove any waxy or oily films and curing compounds (if present) by mechanical scarification. When bonding KERDI-BOARD to particularly dry, porous concrete, the slab should be moistened to saturate the concrete and help prevent premature drying or skinning of the bond coat. Excess or standing surface water must be removed prior to installation.

Panel and Membrane

KERDI-BOARD, KERDI-BAND, and DITRA-HEAT are installed using unmodified thin-set mortar (mixed to a fairly fluid consistency, but still able to hold a notch).

KERDI-BOARD

1. Apply unmodified thin-set mortar to the concrete substrate using a 1/4" x 3/8" (6 mm x 10 mm) square-notched trowel.
2. Apply KERDI-BOARD to the floor. Solidly embed the panel into the mortar using a float or screed trowel, making sure to observe the open time of the bonding mortar. If the mortar skins over prior to panel installation, remove and reapply.
3. Check the underside of the panel for coverage. Proper installation results in full contact between the fleece webbing and the thin-set mortar. Coverage may vary with mortar consistency, angle at which the trowel is held, substrate flatness, etc. If full coverage is not achieved, remove and reapply, making sure to verify proper mortar consistency and application. A trowel with larger notches may be used if required.
4. If the concrete substrate is subject to moisture migration, seal all seams in KERDI-BOARD with KERDI-BAND. Apply unmodified thin-set mortar using a 1/4" x 3/16" (6 mm x 5 mm) V-notched trowel or the KERDI-TROWEL. Embed KERDI-BAND in the mortar and work the membrane onto the surface to ensure full coverage and remove air pockets.

DITRA-HEAT

1. Apply unmodified thin-set mortar to the KERDI-BOARD using a 1/4" x 1/4" (6 mm x 6 mm) square-notched trowel.
2. Apply DITRA-HEAT to the floor, fleece side down. Solidly embed the matting into the mortar using a float or screed trowel, making sure to observe the open time of the bonding mortar. If the mortar skins over prior to matting installation, remove and reapply.
3. Lift up a corner of the matting to check coverage. Proper installation results in full contact between the fleece webbing and the thin-set mortar. Coverage may vary with mortar consistency, angle at which the trowel is held, substrate flatness, etc. If full coverage is not achieved, remove and reapply, making sure to verify proper mortar consistency and application.
4. Abut end and side sections of adjacent sheets. Aligning the studs on the top of the matting during installation will help make subsequent heating cable installation easier.

Heating Cables, Waterproofing, and Tile

See the Schluter®-DITRA-HEAT Installation Handbook

ESTIMATED THIN-SET MORTAR COVERAGE

To bond KERDI-BOARD to the substrate:

Use one 50 lb. (22.68 kg) bag of mortar per 65 ft² (6.0 m²).

To bond DITRA-HEAT to the KERDI-BOARD:

Use one 50 lb. (22.68 kg) bag of mortar per 100 ft² (9.3 m²).