



UNCOUPLING MEMBRANE FOR HEATING CABLE

INSTALLATION GUIDE

HGSMD - HGSMDF ROLL/SHEET

HGMD162-HGSMD054
HGSMDF



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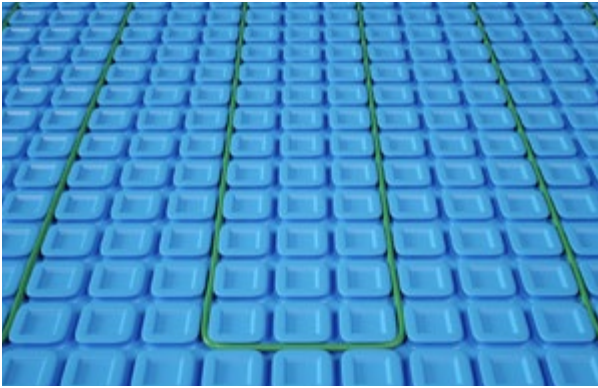
THANK YOU FOR YOUR PURCHASE!
QUESTION? PROBLEM? CONTACT STELPRO CUSTOMER SERVICE.

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INTRODUCTION

The patented °STELPRO uncoupling membrane combines the benefits of an underlayment membrane with the comfort and ease of installation of electrical floor heating.

The °STELPRO uncoupling membrane can be installed over the entire subfloor as an uncoupling, crack isolation membrane. °STELPRO's Green heating cable is then installed in the areas where heat is desired. Once the heating cable is installed you can begin tiling immediately; no waiting is necessary.



The °STELPRO membrane is a polypropylene uncoupling, crack isolation membrane with rounded square studs. These studs form a channel specially designed to embed and hold the heating cable in place.

The °STELPRO membrane has a polypropylene thermo welded woven backside to increase the bond between the subfloor and membrane.



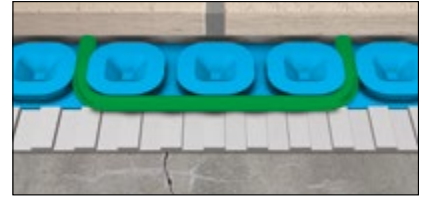
The °STELPRO uncoupling membrane is also an outstanding heating cable installation system for all types of flooring, including wood and soft floor coverings.

SIMPLICITY, EFFICIENCY, AND COST SAVINGS

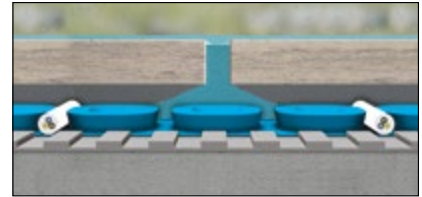
- The use of an uncoupling membrane simplifies heating cable installation.
- No need to plan the placement of gauges, which prevents errors and saves time.
- No issues with gauges coming loose at the wrong moment.
- **Moreover, when laying tiles, an entire step is eliminated** since there's no need to cover the heating cable with a self-leveling underlayment.

ADVANTAGES OF THE °STELPRO MEMBRANE

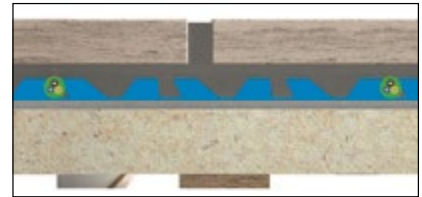
UNCOUPLING: The °STELPRO membrane compensates for the longitudinal movement between the subfloor and the tiles preventing breakage and making it possible to install underfloor electric heating even on problematic substrates such as wood and cracked, but stable, substrates.



VAPOUR MANAGEMENT: The °STELPRO membrane's design allows for air pockets to form between the subfloor and the membrane itself. Excess moisture from the substrate will find its way to these air pockets and create a vapour cycle. This vapour cycle will balance the vapour content of the substrate, protecting the floor covering from potential damage and making it possible to install underfloor electric heating even on substrates that are not perfectly cured or are moisture sensitive such as wood, concrete, and gypsum based subfloors.



LOAD DISTRIBUTION: The °STELPRO membrane's design allows loads to be evenly distributed from the tile covering to the subfloor. Each rounded square stud has a central cavity shaped like an inverted pyramid. When filled with mortar or self-leveling underlayment, this inverted pyramid becomes an incompressible structure. These cavities act like pillars in a building support structure.



THE ADVANTAGES IN DETAIL

- Thanks to the uncoupling and crack isolation properties of the °STELPRO membrane, it's possible to install a floor heating system and tiles over various subfloors such as plywood, concrete, etc.
- With its low profile design, the height of the membrane is only 5.5 mm (1/4 in.), making it the ideal solution for construction and renovation projects aiming to minimize level differences between heated and non-heated finished floors.
- The low overall weight of the system makes it the perfect choice for applications when the load bearing capacity of the subfloor is a limitation.
- Thanks to its air pocket design, the uncoupling membrane provides low thermal inertia. Heat will be transferred quickly and efficiently to the tiles, offering faster comfort than traditional installation.
- Cost effective/time saving installation, coupled with the efficiency and safety of electric floor heating make the °STELPRO membrane the obvious choice.
- It is NOT necessary to cover the heating cable with a self-leveling underlayment before installing the tiles, which allows for significant savings in terms of materials, time, and costs, and reduces the floor structure's weight.
- The °STELPRO membrane does not require any maintenance over time.

TYPES OF INSTALLATIONS

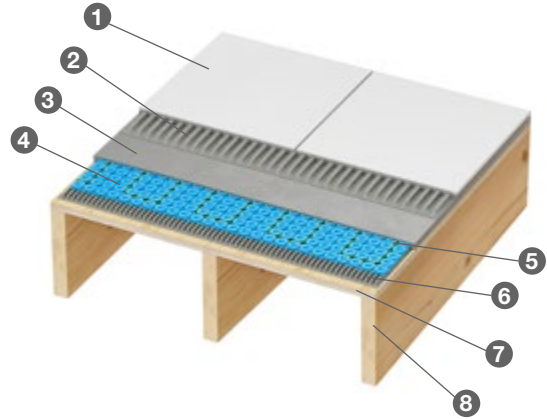
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WOOD SUBFLOOR

Wood subfloor considerations and installation details:

Wood and its derivatives are commonly used in today's construction. All wood materials expand, contract, bend, and flex with changes in temperature, humidity, and load in the surrounding environment. These deformations can be seasonal or due to an isolated incident, such as a plumbing accident, and will naturally occur over the life of a building structure.

- The °STELPRO's membrane is laid directly over the entire surface intended for tile installation.
- The heating cable is then installed in the areas where heat is desired using the channels formed between the rounded square studs.
- Use modified or unmodified thin-set mortar for tile installation, or a self-leveling underlayment 1/2 in. above the studs for installing a resilient or wood flooring.



1. Floor covering
2. Modified (ANSI A118.11) or non-modified (ANSI 118.1) mortars or suitable adhesive for soft or wood floorings
3. Thin-set mortar or self-leveling underlayment
4. Uncoupling membrane from °STELPRO
5. Heating cable
6. Latex modified Portland cement mortar (ANSI A118.11)
7. Single or double layer of plywood or OSB
8. Joists

WOOD SUBFLOORS (OSB OR PLYWOOD)

JOIST SPACING	OSB PLYWOOD LAYERS	TILE TYPE	MIN. TILE SIZE*	MINIMUM SUBFLOOR THICKNESS
16" OC OSB OR PLYWOOD	Single	Ceramic/porcelain	2" x 2"	19/32" 5/8" nominal with 1/8" gap
19.2" OC OSB OR PLYWOOD	Single	Ceramic/porcelain	2" x 2"	23/32" 3/4" nominal with 1/8" gap
24" OC OSB OR PLYWOOD	Double	Ceramic/porcelain	2" x 2"	23/32" 3/4" nominal with 1/8" gap
16" OC OSB OR PLYWOOD	Double	Natural stone	2" x 2"	19/32" 5/8" nominal with 1/8" gap
19.2" OC OSB OR PLYWOOD	Double	Natural stone	2" x 2"	23/32" 3/4" nominal with 1/8" gap
24" OC OSB OR PLYWOOD	Double	Natural stone	2" x 2"	23/32" 3/4" nominal with 1/8" gap

*Mosaic tiles smaller than 2 in. x 2 in. can be used. To do so, fill the uncoupling membrane with a self-leveling underlayment to a minimum height of 1/4 in. above the studs.

- Minimum thickness for additional underlayment: 3/8 in. or 10 mm.
- Underlayment. APA C-C PLUGGED EXTERIOR.
- Additional underlayment is required for joists/l-beams/floor trusses spaced more than 19.2 in. for any type of tile.
- Additional underlayment is required for all types of natural stone regardless of joist/l-beam/floor truss spacing.
- Underlayment 1/2 in. (13 mm) or thinner, space fasteners 4 in. (102 mm) around the perimeter and 6 in. (152 mm) O.C. in each direction throughout the body of the panel.
- Underlayment thicker than 1/2 in. (13 mm), space fasteners 6 in. (152 mm) around the perimeter and 6 in. O.C. in each direction throughout the body of the panel.

TEST PROCEDURE: ASTM C627: "STANDARD TEST METHOD FOR EVALUATING CERAMIC FLOOR TILE INSTALLATION SYSTEMS USING THE ROBINSON-TYPE FLOOR TESTER"

REPORT NUMBER	SUBSTRATE	TILE	JOIST SPACING	ACHIEVED RATING
TCNA-772-14	Concrete	12" x 12" porcelain tile	Not applicable	Extra heavy
TCNA-773-14	OSB/plywood	12" x 12" porcelain tile	19.2"	Extra heavy

WOOD SUBFLOORS (OSB OR PLYWOOD) SETTING AND GROUTING MATERIALS

Adhesive to bond the °STELPRO membrane to subfloor	Latex modified Portland cement mortar (ANSI A118.11)
Self-leveling underlayment	According to the self-leveling underlayment manufacturer's recommendations
Adhesive for soft or wood flooring	According to the flooring and adhesive manufacturer's recommendations
Adhesive to install tiles to the °STELPRO membrane	Modified (ANSI A118.11) or non-modified (ANSI 118.1) mortars
Grout	Polymer-modified cement grout (ANSI A118.3, A118.6, A118.7, A118.8)*

*Please consult your mortar manufacturer for proper mortar selection and curing time for your specific installation.

WOOD SUBFLOORS (OSB OR PLYWOOD) ANSI INSTALLATION SPECIFICATION

Tile fixing	ANSI (108.5)
Grout	ANSI (A108.6, A108.9, A108.10)

EXPANSION JOINTS

The °STELPRO membrane 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 TCNA EJ171, or TTMAC 301 MJ.

SUBSTRATE PREPARATION

- Wood panels need to be properly fastened and secured to framing structure.
- Wood panels need to be clean of dust, residue, wax, oil, and grease.
- Wood panels need to be levelled before the installation of the °STELPRO membrane.
- Remove all exposed nails, screws, fasteners, and debris.

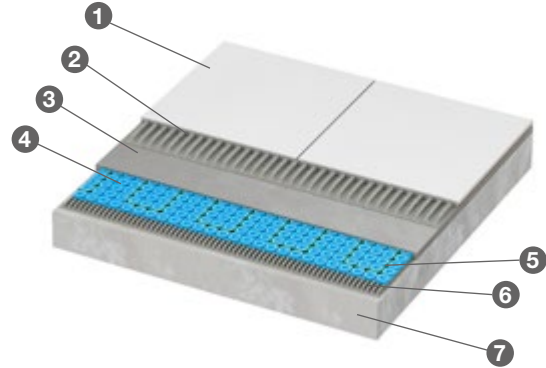
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CEMENT BASED SUBFLOOR

Cement based subfloor considerations and installation details:

Thermal expansion, shrinkage, and any other relative movement between a cement based screed and the tiles above will subject the tile assembly to stress. This stress can ultimately cause cracking and delamination.

- The °STELPRO membrane is the ideal solution to install ceramic and natural stone tiles on cement slabs even if they are cracked or are not perfectly cured.
- The membrane is laid directly over the entire surface intended for tile installation. °STELPRO's heating cable is then installed in the areas where heat is desired using the channels formed between the rounded square studs.
- Use modified or unmodified thin-set mortar for tile installation, or a self-leveling underlayment 1/2 in. above the studs for installing resilient or wood flooring.



1. Floor covering
2. Modified (ANSI A118.11) or non-modified (ANSI 118.1) mortars or suitable adhesive for soft flooring or wood floorings
3. Thin-set mortar or self-leveling underlayment
4. Uncoupling membrane from °STELPRO
5. Heating cable
6. Latex modified Portland cement mortar (ANSI A118.11)
7. Cement based slab

INSTALLING TILES ON A CEMENT BASED SUBFLOOR PRESENTS MANY CHALLENGES.

The following table illustrates the difference in thermal expansion between a cement subfloor and the tiled surface.

TILE SURFACE MATERIAL	THERMAL EXPANSION RATIO
Ceramic	6 times the thermal expansion of cement
Marble	7 times the thermal expansion of cement
Granite	9 times the thermal expansion of cement

CEMENT SUBFLOOR SETTING AND GROUTING MATERIALS

Adhesive to bond the °STELPRO membrane to subfloor	Latex modified Portland cement mortar (ANSI A118.11)
Self-leveling underlayment	According to the self-leveling underlayment manufacturer's recommendations
Adhesive for soft or wood flooring	According to the flooring and adhesive manufacturer's recommendations
Adhesive to install tiles to the °STELPRO membrane	Modified (ANSI A118.11) or non-modified (ANSI 118.1) mortars
Grout	Polymer-modified cement grout (ANSI A118.3, A118.6, A118.7, A118.8)*

*Please consult your mortar manufacturer for proper mortar selection and curing time for your specific installation.

CEMENT SUBFLOOR ANSI INSTALLATION SPECIFICATION

Tile fixing	ANSI (108.5)
Grout	ANSI (A108.6, A108.9, A108.10)

EXPANSION JOINTS

The °STELPRO membrane 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 TCNA EJ171, or TTMAC 301 MJ.

PREPARATION OF THE CEMENT SUBFLOOR

- Cement based substrate must be compact and structurally sound.
- Cracks in the substrate need to present a maximum longitudinal movement of 1/8 in. (NO VERTICAL MOVEMENT).
- Debris, dust, wax, grease, and oil residue must be removed or abraded/scored to offer better bond to the mortar.
- Using a tile mortar to fill the uncoupling membrane surface, the minimum tile size is 2 in. by 2 in. Mosaic tiles smaller than 2 in. by 2 in. can be used. To do so, fill the uncoupling membrane with a self-leveling underlayment to a minimum height of 1/4 in. above the studs.

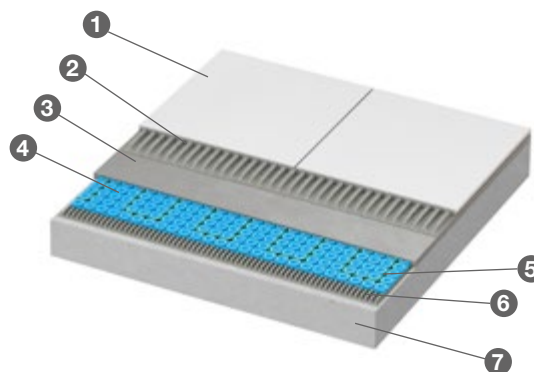
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GYP SUM BASED UNDERLAYMENT

The membrane installed over gypsum based underlayment:

Gypsum based underlayment or more properly gypsum based substrate present many advantages, but also a few challenges to the tile installer. CaSO₄ calcium sulfate is the component of gypsum based underlayment and, when in contact with water, it can lead to the formation of ettringite (hydrate calcium aluminium sulfate), which can cause an increase in volume. Gypsum based underlayment must be waterproofed against any exposure to water or moisture throughout the life of the installation if possible. Please follow the underlayment manufacturer's instructions for proper preparation and primer application before fixing the °STELPRO membrane to the gypsum based underlayment. Gypsum based underlayment must be applied to a structural subfloor (cement based subfloor or wood based subfloor). For subfloor preparation, see previous pages.

- The °STELPRO membrane is the ideal solution to install ceramic and natural stone tiles on gypsum based underlayment.
- The membrane is laid directly over the entire surface intended for tile installation. °STELPRO's heating cable is then installed in the areas where heat is desired using the channels formed between the rounded square studs.
- Use modified or unmodified thin-set mortar for tile installation or a self-leveling underlayment 1/2 in. above the studs for installing resilient or wood flooring.



1. Floor covering
2. Modified (ANSI A118.11) or non-modified (ANSI 118.1) mortars or suitable adhesive for soft flooring or wood floorings
3. Thin-set mortar or self-leveling underlayment
4. Uncoupling membrane from °STELPRO
5. Heating cable
6. Latex modified Portland cement mortar (ANSI A118.11)
7. Gypsum underlayment

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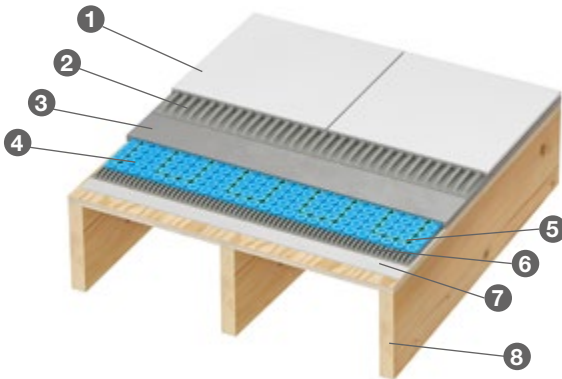
EXISTING VINYL FLOOR

Interior installation of a floor covering on an existing vinyl-covered floor:

Vinyl floor covering is a non-supporting layer installed over a supporting subfloor typically made of wood or cement. Supporting subfloor preparation and consideration are identical as per application without the vinyl floor.

Additional considerations for installation over existing vinyl floor:

- The vinyl must adhere to the entire surface and not be cushioned.
- Using a tile mortar to fill the uncoupling membrane surface, the minimum tile size is 2 in. by 2 in. Mosaic tiles smaller than 2 in. by 2 in. can be used. To do so, fill the uncoupling membrane with a self-leveling underlayment to a minimum height of 1/4 in. above the studs.
- Single vinyl floor ONLY. Multiple layers of vinyl floor, if any, must be removed.
- If foam or any under cushioning mat had previously been installed under the vinyl floor, the vinyl floor needs to be removed entirely and the °STELPRO membrane fixed directly to the subfloor.
- The vinyl floor must be free of debris, dust, grease, and wax substance.
- Outside perimeter secured or partial vinyl flooring is NOT acceptable for direct installation of the °STELPRO membrane as it may cause undesired stress to the tile assembly.
- To adhere the °STELPRO membrane to existing vinyl floor, please use fast-setting latex modified mortar (ANSI A118.4 or A118.15).
- The °STELPRO membrane 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 TCNA EJ171, or TTMAC 301 MJ.
- Use modified or unmodified thin-set mortar for tile installation, or a self-leveling underlayment 1/2 in. above the studs for installing soft or wood flooring.



1. Floor covering
2. Modified (ANSI A118.11) or non-modified (ANSI 118.1) mortars or suitable adhesive for soft flooring or wood floorings
3. Thin-set mortar or self-leveling underlayment
4. Uncoupling membrane from °STELPRO
5. Heating cable
6. Latex modified Portland cement mortar (ANSI A118.11)
7. Existing vinyl-covered floor
8. Joists

SETTING AND GROUTING MATERIALS FOR INSTALLATION OVER EXISTING VINYL FLOOR

Adhesive to bond the °STELPRO membrane to subfloor	Latex modified Portland cement mortar (ANSI A118.11)
Self-leveling underlayment	According to the self-leveling underlayment manufacturer's recommendations
Adhesive for soft or wood flooring	According to the flooring and adhesive manufacturer's recommendations
Adhesive to install tiles to the °STELPRO membrane	Modified (ANSI A118.11) or non-modified (ANSI 118.1) mortars
Grout	Polymer-modified cement grout (ANSI A118.3, A118.6, A118.7, A118.8)*

*Please consult your mortar manufacturer for proper mortar selection and curing time for your specific installation.

OVER EXISTING VINYL FLOOR ANSI INSTALLATION SPECIFICATION

Tile fixing	ANSI (108.5)
Grout	ANSI (A108.6, A108.9, A108.10)

MEMBRANE INSTALLATION

MOVEMENT/EXPANSION JOINTS

Any tile surface assembly cross section is made of several different materials, including tiles, woodscrews, cement, gypsum, adhesives, beams, and more. All these different materials contract and expand in different ways when temperature, moisture, and load change, causing stress in the overall tile assembly and ultimately cracks and possibly delamination of the tiles.

Ceramic and natural stone tiles are rigid and are not able to compensate for movements. An expansion/movement joint is the part of the assembly designed to absorb the stress on the assembly by allowing movement. The °STELPRO membrane does NOT eliminate the need for expansion/movement joints, including perimeter joints, within the tiled surface.

Movement joints must be installed in accordance with industry standards and norms TCNA EJ171, or TTMAC 301 MJ.

EXPANSION/MOVEMENT JOINT PLACEMENT

- Perimeter joint must be installed around the entire installation perimeter.
- Surface joint: 16 ft-20 ft (4.9 m - 6.1 m) in both directions. Reduce separation by 25% if exposed to direct sunlight, heating cable, or moisture.
- Surface joint must be installed near any structural element (columns, beams, stairways, doorways).
- Structural joint is needed when two separate supporting structures meet under the tiles or the underlayment.
- Areas enclosed within joints should be square or rectangle with the ratio between each dimension not to exceed 1:1.5.

1 PREPARATION

- Before laying the °STELPRO membrane, make sure that the substrate is load bearing, compact, flat and free of any oil, grease, and wax which could prevent proper adhesion.
- Before laying the °STELPRO membrane, make sure that the substrate is in accordance with local and national building codes and norms.
- In case of a wood based substrate check that the panels are properly secured.
- In the case of vinyl flooring, make sure that the underlying structure is sound and suitable for the intended use and that the vinyl flooring is securely attached.
- In case of gypsum based underlayment verify that the moisture content is less than 2%.

Mortar required to secure the °STELPRO membrane to the substrate:

50 lbs (22.70 kg) for 80 ft² (7.4 m²) using 1/4 in. x 3/8 in. (6 mm x 10 mm) square or U-notched trowel.

2

LAYING THE MEMBRANE



1 Cut the membrane and dry fit to the whole floor. Align the studs from one sheet to the other.



2 Key in the appropriate thinset mortar to the subfloor using the flat side of a trowel.



3 Make uniform ridges with a 1/4" x 3/8" x 1/4" trowel.



4 Unroll the membrane onto the thinset mortar and apply uniform pressure with a wood trowel.



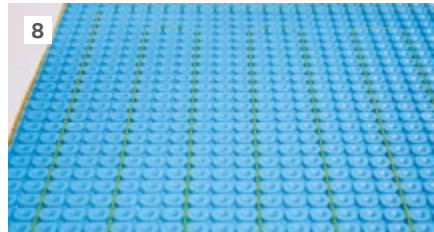
5 Use a 75 lb roller to achieve 100% thinset mortar transfer to the membrane.



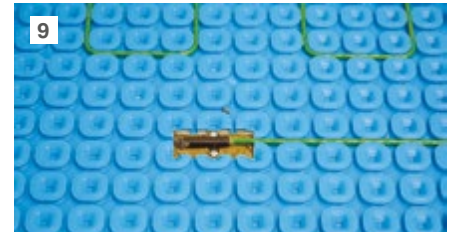
6 Check the thinset mortar transfer to the membrane.



7 Start the installation of the heating cable by cutting the membrane to insert the mechanical joint and part of the cold lead.



8 Install the cable according to the installation guide, ensuring to insert the cable at uniform spacing and at a maximum power of 15 watts per square foot.



9 Finish the cable's installation by cutting the membrane and inserting the end of the cable.



10 Install the floor sensor between two cable runs. Follow the manufacturer's instructions for the heated cables.

WARNING

Drying time is a determining factor in the success of an installation with a membrane. Be sure to respect the mortar manufacturer's curing time before grouting the tiles.

WARNING: HEATING CABLE

Before installation, the user and/or installer must read, understand and adhere strictly to the instructions below as well as °STELPRO's cable installation guide.

- Any deviation from the instructions below will completely void the °STELPRO's warranty and liability.
 - The instructions below are intended to avoid personal injury and/or property damage.
 - °STELPRO's cable must be installed by qualified personnel wherever the law requires, and all electrical connections must be performed by a qualified electrician according to local and national building codes and standards where required.
 - A dedicated electrical circuit for heating must be used to power the heating cable. The dedicated circuit breaker must be clearly identified and labeled on the circuit breaker panel.
 - The heating cables must be grounded in accordance with local and national electric codes.
 - Any modification or tampering of the heating cable will completely void °STELPRO's warranty and liability.
 - Do not power the cable when on the spool; this could damage the cable and cause a fire.
 - The heating section of the heating cable must be installed entirely below the flooring, encapsulated in cement based material, including the mechanical joint to the cold lead and the end of the cable.
 - Use only the Green Cable Surface XL with the °STELPRO's membrane.
- Compliance with the following standards is mandatory: CANADA CAN/CSA-C22.2 No. 130-16, USA UL 1673 and ANSI/IEEE 515.1-2005.
 - Thermostat must comply with following standards: CANADA C22.2 No. 24-93, USA UL 873.
 - Install the heating cable at every three rounded square studs or in a uniform alternating pattern of 2 studs-3 studs. Under no circumstances should the power exceed 15 watts per square foot. Closer spacing of the cable could result in damage to the cable and the floor covering.
 - **NEVER USE** a heating cable designed for 110V/120V with 208V/220V/240V power.
 - **NEVER CUT/SHORTEN/MODIFY** the heating cable; doing so will change the electrical characteristics of the cables and possibly cause overheating.
 - Avoid bending the heating cable to a radius of curvature less than 0.5 in., otherwise you may damage the insulation and integrity of the wires.
 - Do not lay the heating cable under walls.
 - The minimum application temperature of a heating cable is 0°C (32°F).

3

LAYING THE TILES



1 Fill the membrane with the appropriate mortar using the flat side of a trowel.



2 Add additional mortar and create ridges using the notched side of a trowel.



3 Install the tiles. Ensure full back coverage.



WARNING

Full back coverage may vary depending on the consistency of the adhesive, the angle of inclination of the notched trowel and the flatness of the substrate. If full back coverage is not achieved, remove the tile and apply more adhesive, paying attention to the consistency of the mortar and its application. For tiles 12 in. x 12 in. and larger, it is recommended to double spread each tile before laying it.

STELPRO LIMITED WARRANTY

°STELPRO Design Inc. (hereinafter “°STELPRO”) warrants to the original purchaser that the uncoupling membrane (hereinafter the “Product”) as sold by °STELPRO, and once installed in conformity with the instructions of °STELPRO, shall be free of defects, in either materials or workmanship as described in this document.

COVERAGE PERIOD

This limited warranty becomes effective on the date of purchase of the Product by the first owner and shall remain effective for a period of twenty-five (25) years (three hundred [300] consecutive months) from the date of original purchase for the Product. This limited warranty is valid for Products bought and installed in Canada and the United States only.

CONDITIONS

This limited warranty is only applicable to new and unused products purchased from °STELPRO, or its authorised re-sellers, provided the installation requirements contained in the product installation guide are met. Claims made for coverage under this limited warranty must be addressed in writing, within seventy-two (72) hours from an event giving rise to a claim, or the appearance of a defect, to °STELPRO Inc.

Email: elec.tech@STELPRO.com, or

Mail: **STELPRO Technical Department**
1041 Parent Street
Saint-Bruno-de-Montarville, QC
J3V 6L7 Canada

Persons making claims for coverage must present °STELPRO with proof of purchase as well as proof of installation in accordance with the installation requirements (photos recommended), the completed Test Log of the heating cable and any documents °STELPRO may require.

Any parts replaced under the terms of this limited warranty become the property of °STELPRO.

WHAT STELPRO WILL/WILL NOT DO

°STELPRO's obligations under this limited warranty are limited to, at its sole discretion, repairing or reimbursing of the defective section of the supplied Product that °STELPRO has determined to be defective in materials or workmanship.

°STELPRO shall repair or reimburse, at its sole and entire discretion, the section of the defective uncoupling membrane goods free of charge. Repair or replacement will only be made for defective parts; and no allowance or reimbursement shall be made for wages, labour and freight costs. Should °STELPRO chose to reimburse the cost of the uncoupling membrane, it will do so at the lesser of the value of the purchase price or the suggested retail price for the same item. With respect to the parts not manufactured by ourselves, we shall only warrant for these to the same extent as our suppliers undertake a warranty obligation towards ourselves.

Because of our ongoing commitment to product quality and innovation, °STELPRO reserves the rights, at any time and without incurring any obligations, to revise, change, modify or discontinue any specifications, features, designs or components.

INSTALLATION REQUIREMENTS

In addition to the requirements included in the current °STELPRO installation guide, which is incorporated herein by this reference, the Product must be installed in accordance with accepted standards, with °STELPRO heating cables, °STELPRO thermostats (or a suitable equivalent, as determined by °STELPRO) and with adhesives that are compatible with an electrical floor heating system.

WARNING

- Failure to install the Product with controls and protection systems (including ground fault circuit interrupters) in conformity with your local electrical codes, as well as indicated in the installation guide, may cause fires.

WARRANTY EXCLUSIONS

- Failures resulting from improper installation.
- Damage caused by abuse, improper installation, repairs, service, maintenance and/or storage, modifications or use of parts not manufactured or supplied by °STELPRO.
- Damage caused by abuse or neglect of the Product.
- Use of heating cables or thermostats other than °STELPRO products (unless an appropriate equivalent, as determined by °STELPRO).
- Damage caused by water, submersion, accident, fire or any act of God.
- Damage resulting from a structural or subfloor defect.
- Cracks and delamination of the tile or grout due to structural failure, excessive deflection, or other substrate failure.
- Incidental, consequential or other damages (including labour costs, inconvenience, loss of time or loss of income).

LIMITATION OF LIABILITY

THIS WARRANTY IS EXPRESSLY GIVEN AND ACCEPTED IN LIEU OF ANY AND ALL OTHER WARRANTIES, EXPRESSED OR IMPLIED, INCLUDING WITHOUT ANY LIMITATION ANY WARRANTY OF MERCHANTABILITY OR FITNESS OR A PARTICULAR PURPOSE. TO THE EXTENT THAT THEY CANNOT BE DISCLAIMED, THE IMPLIED WARRANTIES ARE LIMITED IN DURATION TO THE LIFE OF THE EXPRESSED LIMITED WARRANTY. INCIDENTAL AND CONSEQUENTIAL DAMAGES ARE EXCLUDED FROM COVERAGE UNDER THIS LIMITED WARRANTY. SOME STATES AND PROVINCES DO NOT ALLOW FOR THE DISCLAIMERS, LIMITATIONS AND EXCLUSIONS IDENTIFIED ABOVE; AS A RESULT, THEY MAY NOT APPLY TO YOU. THIS WARRANTY GIVES YOU SPECIFIC RIGHTS WHICH MAY VARY FROM ONE STATE OR PROVINCE TO ANOTHER.

Neither °STELPRO products re-sellers, installers or any other person is entitled or authorized to make any affirmation, representation or warranty other than those contained in this limited warranty.