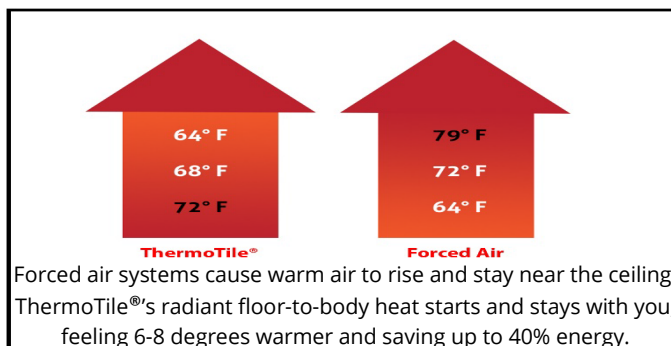# ThermoTile® Heating Cable on Uncoupling Membrane for Ceramic, Porcelain, and Natural Stone Tile

PRODUCT DESCRIPTION
ThermoSoft ThermoTile® heating cable is easily installed under your tile floor with an uncoupling membrane. Combine cable and membrane for improved protection against tile and grout cracking. ThermoTile® heating cable on membrane can be installed under ceramic, porcelain and natural stone tile when embedded in thin-set mortar or self-leveling cement.
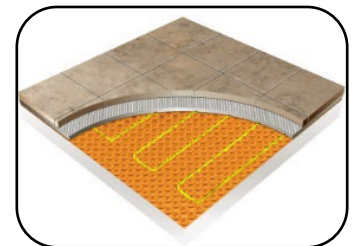
FEATURES AND BENEFITS
- Combines radiant floor heating with uncoupling technology to prevent tile and grout cracking and quicker, easier positioning of loose heat cable.
- Allows for maximum customization of the heated area simply by placing heat cable between membrane mat studs at 2, 3 or alternating stud spacing.
- The factory-attached lead wire on only one end of the heat cable facilitates the electrical connection.
- Dual cable construction and inner foil shield virtually eliminates electro-magnetic field and interference with electronic appliances.
- Heat cables are easily and uniformly spaced between the membrane mat studs.
- Zones can be controlled independently, room to room.
- Membrane material protects substrate from moisture penetration and prevents tile and grout cracking.
- When used with membranes featuring a thermal break, floor warming response time is improved, and heat loss is reduced.
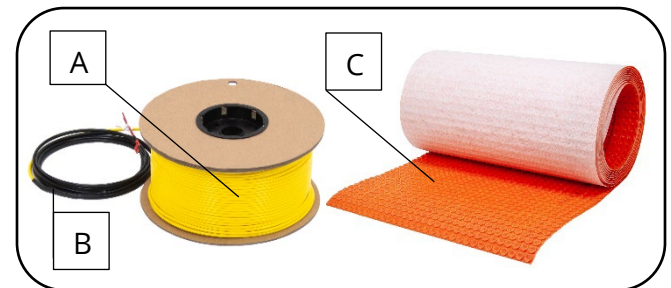

ThermoTile®	Forced Air
64° F	79° F
68° F	72° F
72° F	64° F

Forced air systems cause warm air to rise and stay near the ceiling. ThermoTile®'s radiant floor-to-body heat starts and stays with you, feeling 6-8 degrees warmer and saving up to 40% energy.

APPLICATIONS
- Ceramic Tile
- Porcelain Tile
- Natural Stone Tile

CONSTRUCTION

A. Heating Cable
PVC plastic outer coating houses tinned copper wires, AL/PET foil, A-AFLON (FEP) and a double core twin conductor. Its diameter is 1/8" to <3/16" to conduct substantial heat without noticeably raising the floors.
B. Lead Wire
10' cold lead wire that connects to energy source.
C. Uncoupling Membrane
Reliefs between studs create column-like supports formed by substrate. Lightweight and durable material is easily cut to fit any custom space.

Note: ThermoTile® cable is made in the USA and is not affiliated or specifically endorsed by Schluter Systems®.

*This document serves as a general guideline and should be used as a supplemental source of information only. See official product manual for specific directions and instructions.

ThermoTile® Heating Cable on Uncoupling Membrane

HEATING CABLE ON MEMBRANE IS AVAILABLE IN 120 AND 240 VOLTS IN THESE LENGTHS:

Volts	Model	Length	Watts	Amps	3.6	3	2.4	2
120	TTC28-120	27.8	90.1	0.75	8.3	7	5.6	4.6
120	TTC39-120	38.9	126.1	1.05	11.7	9.7	7.8	6.5
120	TTC56-120	55.6	180.1	1.5	16.7	13.9	11.1	9.3
120	TTC84-120	84	252	2.1	25	21	16	14
120	TTC112-120	112	336	2.8	33	28	22	18
120	TTC168-120	168	504	4.2	50	42	33	28
120	TTC224-120	224	672	5.6	67	56	44	37
120	TTC279-120	279	837	6.98	83	69	55	46
120	TTC336-120	336	1,008	8.4	100	84	67	56
120	TTC390-120	390	1,170	9.75	117	97	78	65
240	TTC56-240	56	168	0.7	16	14	11	9
240	TTC78-240	78	234	0.98	23	19	15	13
240	TTC112-240	112	336	1.4	33	28	22	18
240	TTC168-240	168	504	2.1	50	42	33	28
240	TTC224-240	224	672	2.8	67	56	44	37
240	TTC336-240	336	1,008.00	4.2	100	84	67	56
240	TTC448-240	448	1,344.00	5.6	134	112	89	74
240	TTC558-240	558	1,674.00	6.98	167	139	111	93
240	TTC672-240	672	2,016.00	8.4	201	168	134	112

W/ft nominal 3.24

W/ft²	10.80	12.96	16.20	19.44

*These are approximate figures only. To achieve above results, installation and planning must be done as closely as possible to manual or those stated here. If you run into issues or require technical support, please contact us at (800)308-8057.

WARRANTY & MAINTENANCE

When installed according to the installation manual and proper testing has been performed throughout, the system requires no maintenance for the duration of its warrantied life.

The ThermoSoft® ThermoTile® Heating Cable is warrantied for limited lifetime against manufacturer's defects. See www.ThermoSoft.com for full warranty details.

TECHNICAL SUPPORT

ThermoSoft® is available at (800)308-8057.

For quotes, layouts, and specific technical information, contact us at:

ThermoSoft International Corporation
701 Corporate Woods Parkway, Vernon Hills, IL 60061
Support@ThermoSoft.com
www.ThermoSoft.com

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Scan here to go to the product page

HEATING CABLE SELECTION GUIDE

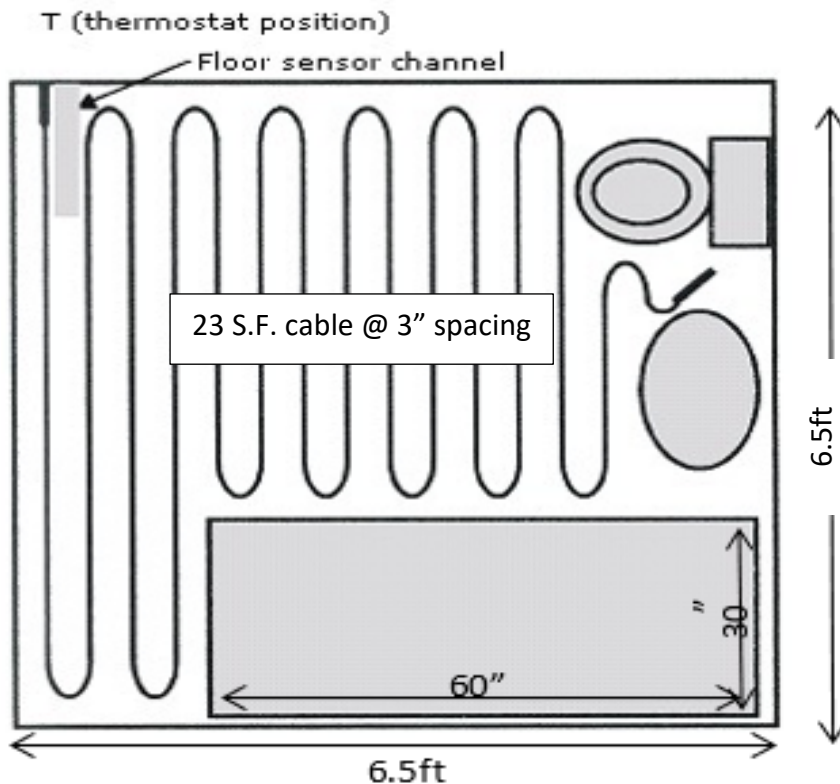1. **Select Mat Voltage and Size**
   Using the model chart, determine mat voltage and size.
2. **Calculate Heating Cable Quantity**
   According to the heated space's layout and dimensions, calculate how many mats are needed to properly fit the area. Remember to subtract items fixed to the ground such as toilets, dressers and appliances.
3. **Determine Circuits/Circuit Protection**
   Refer to user manual for specifics and directions. Always consult a licensed electrician.

T (thermostat position)
Floor sensor channel

23 S.F. cable @ 3" spacing

6.5ft

30"

60"

6.5ft

To calculate the product SKU needed:
-Determine desired cable voltage.
-Determine square footage of heated area. excluding 4" clearance around fixtures such as drains, pipes, electrical conduits, and structural members.
-Determine distance between cables (these should be 2" or 3").
-Match up distance between cables to chart in accordance to square footage.
-Select a combination of cable lengths that most closely totals the length required.

To calculate spacing needed, see chart (right).

Power Output	Cable Spacing
15 W/ft²	2.0 inches
12 W/ft²	3.0 inches

Example:
Cable Voltage: 120 volts total
Heated Square Footage: 23 sq. ft. total
Distance Between Cables: 3 in. total
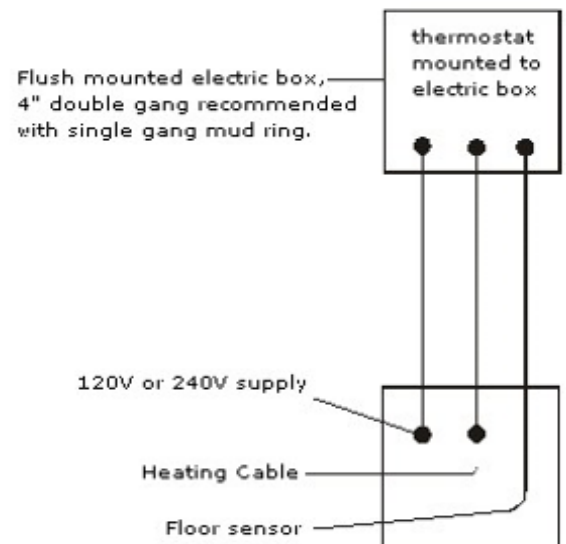SKU :   HC15-120

IMPORTANT NOTES ON CABLE SELECTION

- Do not overlap heating cables or heat while rolled up.
- Do not cut Heating Cable. Doing so will damage heating wires and result in voided warranty.
- For more information, call (800)308-8057 or visit www.ThermoSoft.com.

SEE ALSO

- ThermoTile® Heating Mat with Anti-Fracture Holding Mesh for Wood, Laminate, Vinyl and Carpet
- PROVA HEAT-FLEX® Uncoupling Membrane for ThermoTile® Cable

thermostat mounted to electric box

Flush mounted electric box, 4" double gang recommended with single gang mud ring.

120V or 240V supply

Heating Cable

Floor sensor

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- Schluter DITRA-HEAT® Uncoupling Membrane for ThermoTile® Cable
- Prodeso® Uncoupling Heat Membrane for ThermoTile® Cable

CONTROLS – THERMOSTATS

Code	Description
UWG4-4999	OJ Wi-Fi Touch Screen Thermostat 15A load, 5mA GFCI, 15' floor sensor (120V or 240V Programmable)
UDG4-4999	OJ Thermostat 15A load, 5mA GFCI, 15' floor sensor (120V or 240V Programmable with touch screen)
UDG-4999	OJ Thermostat 15A load, 5mA GFCI, 10' floor sensor (120V or 240V Programmable w/air & floor limit)
TH115-AF-GA/U	OJ Thermostat 15A load, 5mA GFCI, 15' floor sensor (120V or 240V manual)
TH114-AF-GA/U	Aube Thermostat 15A load, 5mA GFCI, 15' floor sensor (120V or 240V Manual)
MTC-2991UFH	OJ Thermostat 15A load, 10' floor sensor (120V Manual)
MTC-1991UFH	OJ Thermostat 15A load, 10' floor sensor (240V Manual)
USG-4000	OJ Power Module 120V or 240V power relay with 5mA GFCI. 15A max load. For use **ONLY** with OJ Electronics' UDG-4999 Thermostats. (120V or 240V)
ETF-110/99C	OJ Backup Floor Sensor 15' floor sensor for OJ thermostats. A redundant sensor is recommended to be installed since sensors are difficult to replace. If installing a backup sensor, only connect one at a time.
AC112-01/U	Aube Backup Floor Sensor 15' floor sensor for Aube thermostats. A redundant sensor is recommended to be installed since sensors are difficult to replace. If installing a backup sensor, only connect one at a time.

ACCESSORIES

ThermoSoft® has a complete line of accessories specifically designed for use with Heating Cable for on

Code	Description
TS38-0248	ThermoStrips Self-adhesive Synthetic Cork Barrier Strips for Self-Leveling Cement. Size: 3/8" x 24" x 2" Each
FIXFAST	FixFast (Cuttable Cable Hold Down Strap) For Directly Securing Cable to Subfloor, Mortar Bed or Sand Bed. Length: 25ft
DT-105	Easy Tear TacTape 1"Wide, 10 Yards Long Duct Tape
DT-17860	Easy Tear Duct Tape 1-7/8" Wide, 60 Yards Long Tape
INSTALRM	InstAlarm Monitor for Short or Open Circuits During Installation. Available in Following Kits: TT Deluxe Install Kit (IK-TAMKGS), TT Safe Install Kit (IK-TAM), TF Install Toolkit (IK-DAMK), TT Basic Install Toolkit (IK-TA)
FLX-BLOCK	Wago Connector 222-415 Terminal Blocks for Multiple Floor Heating Cable Connections
MULTIMTR	Digital Multimeter for Monitoring Electrical Resistance During Installation. Available in Following Kits: TT Deluxe Install Kit (IK-TAMKGS), TT Safe Install Kit (IK-TAM), TF Install Toolkit (IK-DAMK)
KNPD-318	Ultra-Light Kneepads for Preventing Cable Damage. Available in Following Kits: TT Deluxe Install Kit (IK-TAMKGS), TF Install Toolkit (IK-DAMK)
ETF-110/99C	OJ Backup Floor Sensor 15' for OJ Thermostats
AC112-01/U	Aube Backup Floor Sensor 15' for Aube Thermostats
NEUP	Non-Heated Underlayment Padding for Fill-In Areas – Multiple Sizes Available
EK-X	Heating Cable on Uncoupling Membrane Lead Wire Extension Kits Available
TRWL3812	Anti-Rust Heavy Duty Plastic Trowel With 1/2in. x 3/8in. Notch for Installing Large Tiles (12" and Up) to Avoid Wire Nicking
TRWL3838	Anti-Rust Heavy Duty Plastic Trowel With 3/8in. Square Notch to Avoid Wire Nicking. Available in Following Kits: TT Deluxe Install Kit (IK-TAMKGS), TT Safe Install Kit (IK-TAM, TT Basic Install Toolkit (IK-TA)
GG-40120	ThermoGun Glue Gun for Speedy and Simple Mat Installation. Available in TT Deluxe Install Kit (IK-TAMKGS)
GS-11200	ThermoGun Hot Melt Glue Adhesive Sticks for Use with ThermoGun. Size: 8.0" x 7/16"
BBB013	Back Butter Buddy for 12" and Larger Tile Buttering of Thinset Mortar

Uncoupling Membrane. Use only ThermoSoft® ThermoTile® heating cable accessories to ensure the performance of the system.

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