



*Floor Warming and Heating Systems*



**SPREAD THE WARMTH**

**Catalogue**  
*Effective March 2015*

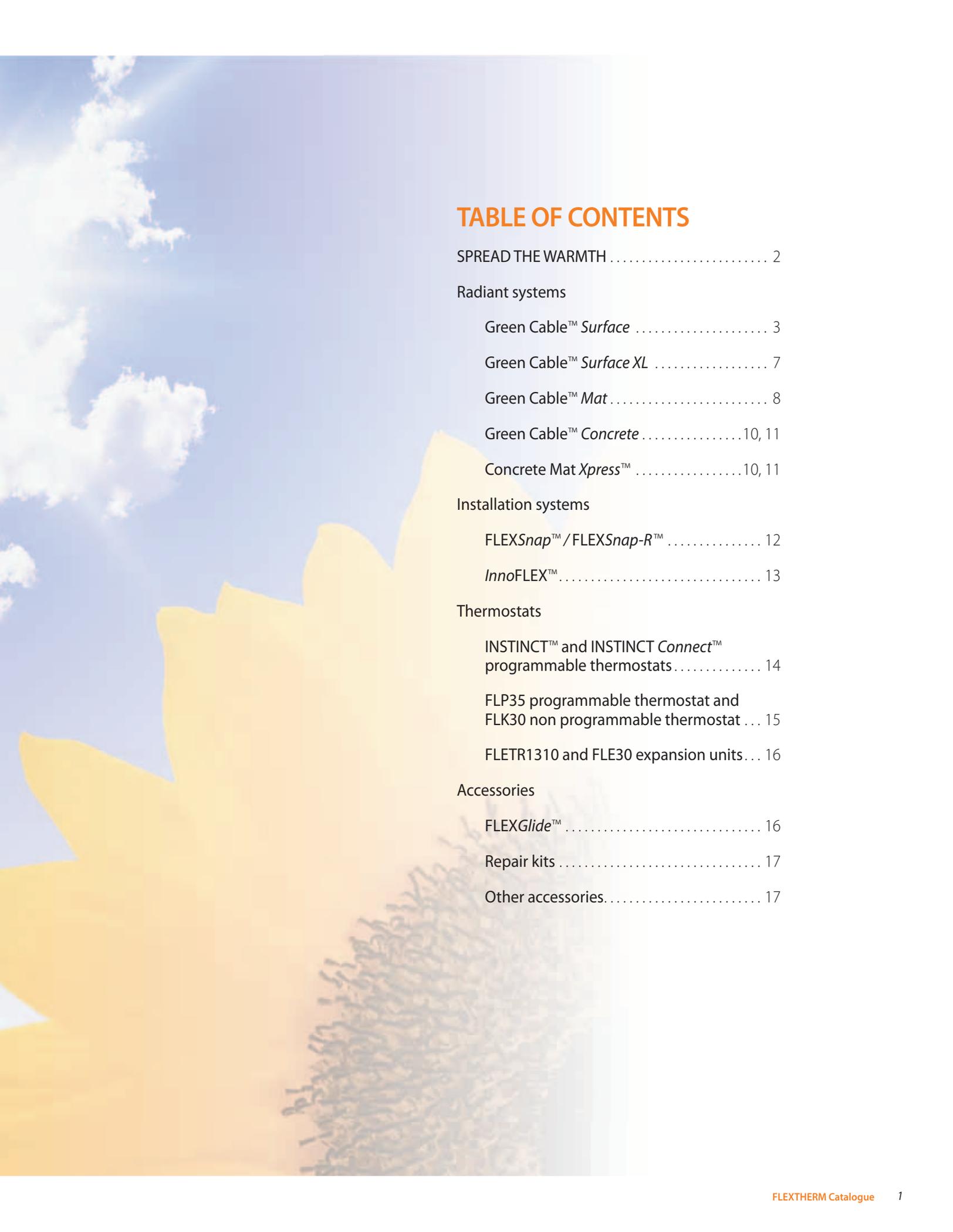


## Why FLEXTHERM?

- We have over 20 years of experience in the manufacturing of floor heating systems.
- Our Customer Service is available from 8 a.m. to 8 p.m. ET, Monday through Friday, to answer your questions and offer you advice and estimates.
- Our products are entirely manufactured in our plant where quality controls are implemented throughout the production process.
- We offer a wide selection of products that are perfect for every project.
- We focus on innovation and we work to improve our existing products and develop new ones with the help of our in-house R&D department.
- We offer excellent warranties on all of our products as well as a repair service in case of a breakage.

*"A few months have gone by since the installation of our FLEXTHERM floor heating system and there is only one word that can describe this type of heating system: wonderful! The temperature in our home has never been so comfortable. and since we run a bed and breakfast out of our home, all of our guests can enjoy it as well!"*

**Ninon Marty and Louise Gauthier**  
Grandes-Bergeronnes, QC



## TABLE OF CONTENTS

SPREAD THE WARMTH ..... 2

### Radiant systems

Green Cable™ *Surface* ..... 3

Green Cable™ *Surface XL* ..... 7

Green Cable™ *Mat* ..... 8

Green Cable™ *Concrete* ..... 10, 11

Concrete Mat *Xpress*™ ..... 10, 11

### Installation systems

FLEX*Snap*™ / FLEX*Snap-R*™ ..... 12

*InnoFLEX*™ ..... 13

### Thermostats

INSTINCT™ and INSTINCT *Connect*™  
programmable thermostats ..... 14

FLP35 programmable thermostat and  
FLK30 non programmable thermostat ... 15

FLETR1310 and FLE30 expansion units... 16

### Accessories

FLEX*Glide*™ ..... 16

Repair kits ..... 17

Other accessories..... 17

## SPREAD THE WARMTH

FLEXTHERM drew inspiration from nature to design and develop its electric radiant heating technology. Just as the sun heats the surface of the Earth, rocks, buildings and anything else touched by its rays, FLEXTHERM systems release soft, enveloping heat that spreads to the elements of your living space.

Electric radiant heat involves heating solid masses rather than the air. After absorbing this energy, floors, walls, furniture and objects redistribute the heat throughout the room, creating a feeling of comfort far superior to that of traditional heating methods, such as baseboard heaters, wall radiators and forced-air systems.

By transferring the heat from warm to cold surfaces, floor heating systems deliver an even heat to the entire room, reducing unpleasant differences in temperature. The air feels warm, yet fresh and pleasant.

### Unparalleled versatility and features

FLEXTHERM electric radiant heating systems are highly versatile. They are suited to any room (kitchen, bathroom, living room, bedroom, office, basement, solarium, garage, etc.) and any type of building: residential, commercial or institutional, a new construction or a renovation.

FLEXTHERM floor heating systems undergo rigorous quality control testing at every stage of production and have many indisputable qualities:

- they are energy efficient, delivering significant savings
- they have no electromagnetic field,\* so there is no health risk for people young or old
- they do not overheat the air nor spread dust or germs
- they are compatible with most floor coverings: ceramic, natural stone, linoleum, floating floors, engineered wood and others
- they offer unlimited decorating possibilities – you can lay out a room however you want because there are no visible parts
- they require no maintenance

\* Based on the installation instructions included in the FLEXTHERM installation guide, the recorded EMF measurement is considered insignificant (between 0.25 mG and 0.5 mG).

### An energy efficient choice

For FLEXTHERM, developing technologies and marketing products that respect people and the environment is essential. By developing systems that are increasingly effective, long-lasting, economical and healthy, FLEXTHERM has demonstrated that you can increase well-being and comfort, while preserving nature's vitality.

Traditional heating systems heat the air, which rises naturally to the ceiling, where it accumulates. Because the warm air is drawn toward the ceiling, the floor remains cold. For the heat to be felt, the space needs to be heated to a higher temperature, which overheats the room and dries the air, increasing energy consumption in the process.

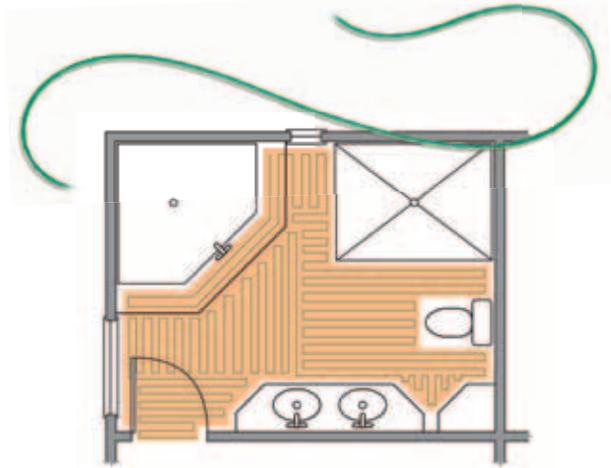
FLEXTHERM electric radiant heating systems take a different approach. They do not heat the air, but instead use the solid mass of the floor and furniture to transfer heat. This means that you can lower the temperature of a room by 5 °C and remain just as comfortable.\* You feel warm, even though the air is cool. Installing a FLEXTHERM floor heating system can reduce energy consumption by up to 28%.\*\* Saving money and protecting the environment without compromising on comfort: what could be better!

\* Source: ASHRAE (American Society of Heating, Refrigerating and Air-Conditioning Engineers)

\*\* Source: ASHRAE – In rooms heated with the FLEXTHERM floor heating system.



# GreenCableSURFACE



## Outstanding flexibility

The Green Cable™ Surface 2W and 3W offers the ultimate in comfort no matter what the room or its dimensions, because it conforms to any shape. Designed for dry and wet environments, it is compatible with most floor coverings and is easy to install thanks to the *Universal Snap-in Gauges™*.

## Green Cable Surface 2W

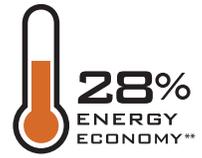
Optimizes the radiant heat and ensures that it spreads evenly over all installation surfaces and under all floor coverings due to its 5 cm or 7.6 cm (2 in or 3 in) spacing.

## Green Cable Surface 3W

For larger rooms with natural stone or ceramic floors, whose plywood or concrete subfloor guarantees better heat conduction.

## Advantages of the Green Cable Surface 2W or 3W

- | Compatible with most floor coverings
- | Fits all room shapes and sizes
- | EMF-free (electromagnetic field)\*
- | Does not dry the air nor spread dust and germs
- | Requires no maintenance
- | Easy installation: no return to the thermostat
- | Robust mechanical joint system
- | Universal Snap-in Gauges
- | Small diameter cable that reduces the quantity of mortar or self-levelling underlayment required for glazing
- | Strong and reliable copolymer jacket
- | Designed for installation in a wet environment (make sure that the installation complies with the local or regional electrical code)
- | Manufactured entirely at the FLEXTHERM plant, with end-to-end quality control
- | CSA approved (Canada and the US)

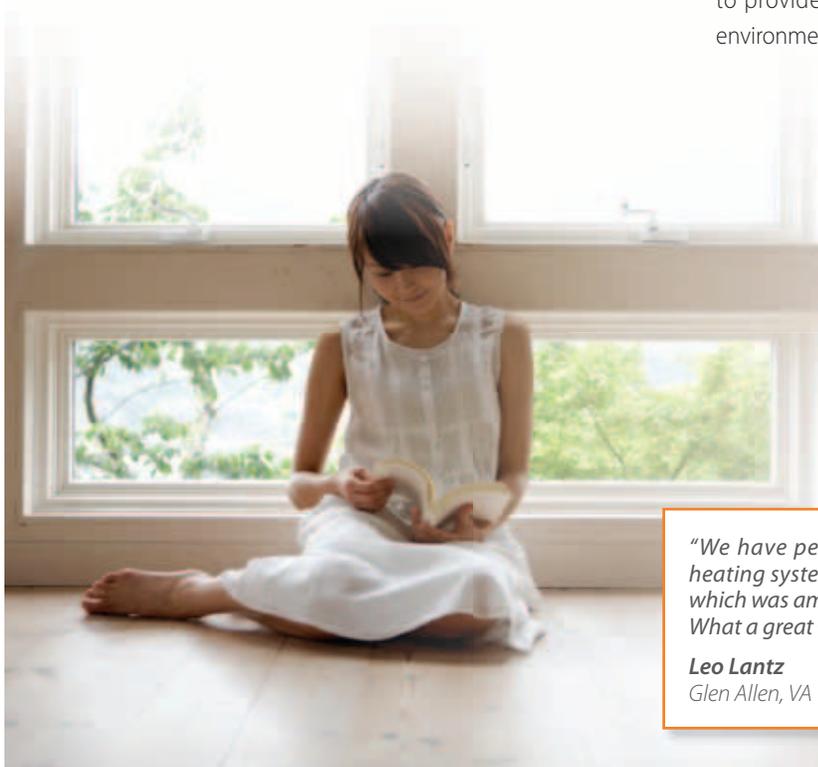
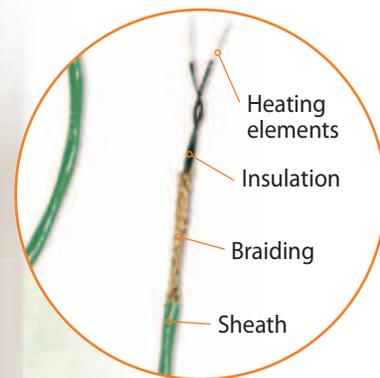


\* Based on the installation instructions included in the FLEXTHERM installation guide, the recorded EMF measurement is considered insignificant (between 0.25 mg and 0.5 mg).

\*\* In rooms heated with the FLEXTHERM floor heating system..

## Unique in its design and comfort

Green Cable Surface 2W or 3W consists of two twisted and paired heating elements, covered in copolymer. This innovation developed by FLEXTHERM uses ultra-resistant and high-performance components to provide you with complete comfort, peace of mind, a healthy environment and real energy savings.



*"We have performed the installation of many FLEXTHERM floor heating systems in the past. We recently used the FLEXSnap system, which was amazing. It saved a tremendous amount of time and labor. What a great new system!"*

**Leo Lantz**  
Glen Allen, VA

# System and installation recommendations suited to your needs

By starting from the centre and answering three simple questions, the diagram will guide you to the best heating system for your floor heating project.

## As easy as 1, 2, 3!

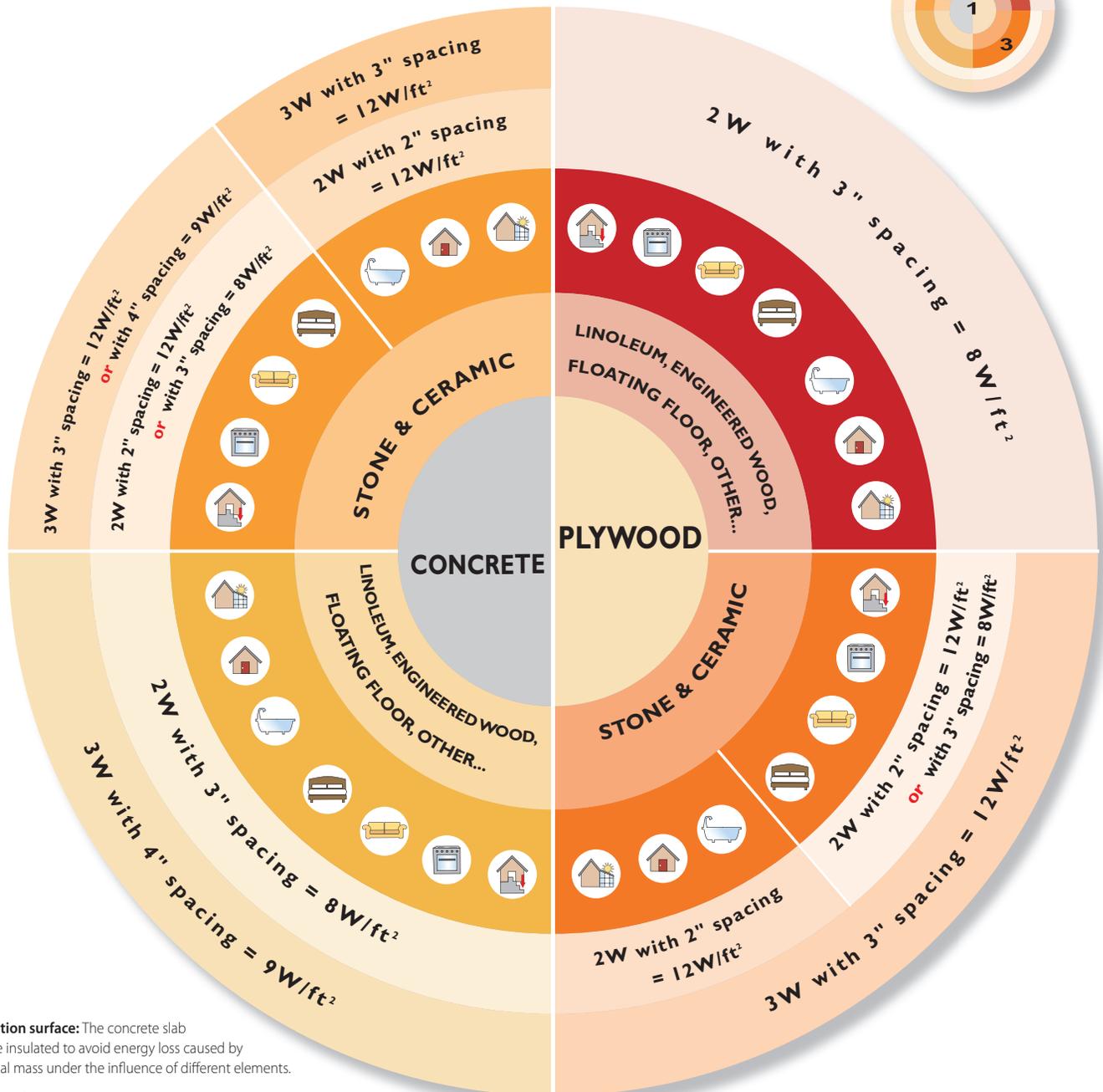
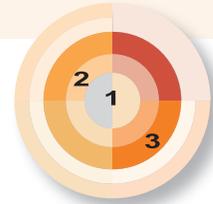
This 2W and 3W diagram is designed to help you choose the right Green Cable™ Surface for your project.

- 1) Installation surface:** On what surface will the heating cable be installed (plywood or concrete)?
- 2) Floor covering:** What floor covering will you use for your project?

### 3) Type of room:

-  Entrance hall
-  Kitchen
-  Living room
-  Solarium\*
-  Bedroom
-  Bathroom
-  Basement

**Recommended installation method:** After you go through steps 1, 2 and 3, we will recommend installation methods.



**Installation surface:** The concrete slab must be insulated to avoid energy loss caused by a thermal mass under the influence of different elements.

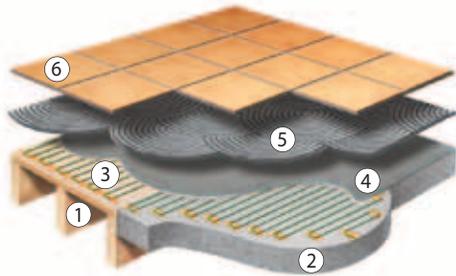
**Floor covering:** Always check with the manufacturer whether a floor covering is compatible with floor heating systems.

\* **Solarium:** Depending on your solarium's insulation and your geographical location, a secondary heating system may be recommended for greater comfort.

## Floor coverings

The type of floor covering also has an influence on the choice of system output. Output of 129 W/m<sup>2</sup> (12 W/ft<sup>2</sup>) is reserved for ceramic and natural stone; 86 W/m<sup>2</sup> (8 W/ft<sup>2</sup>) lets you choose almost any floor covering. See for yourself!

- ① Wood structure
- ② Concrete structure
- ③ FLEXTHERM's Green Cable Surface
- ④ Mortar or self-levelling cement
- ⑤ Adhesive
- ⑥ Floor covering



## Customized comfort

A perfect fit for any surface, the Green Cable Surface 2W or 3W is available in a range of lengths and with an output of 120 volts or 240 volts. It is also available in 208 volts by special order. (Minimum quantity required.)

All kits include the cable, gauges, hot glue sticks and an installation guide.



## Compatibility of the Green Cable Surface with installation surfaces and floor coverings

Green Cable Surface 2W								
Installation surface	Floor covering							
	Ceramic	Natural stone	Engineered wood <sup>2</sup>	Vinyl <sup>2</sup>	Floating floor <sup>2</sup>	Linoleum <sup>2</sup>	Parquet <sup>2</sup>	Carpet <sup>2</sup> (without rubber backing or carpet padding)
Plywood	5 cm (2 in) spacing – 129 W/m <sup>2</sup> (12 W/ft <sup>2</sup> )	5 cm (2 in) spacing – 129 W/m <sup>2</sup> (12 W/ft <sup>2</sup> )	7.6 cm (3 in) spacing – 86 W/m <sup>2</sup> (8 W/ft <sup>2</sup> )	7.6 cm (3 in) spacing – 86 W/m <sup>2</sup> (8 W/ft <sup>2</sup> )	7.6 cm (3 in) spacing – 86 W/m <sup>2</sup> (8 W/ft <sup>2</sup> )	7.6 cm (3 in) spacing – 86 W/m <sup>2</sup> (8 W/ft <sup>2</sup> )	7.6 cm (3 in) spacing – 86 W/m <sup>2</sup> (8 W/ft <sup>2</sup> )	7.6 cm (3 in) spacing – 86 W/m <sup>2</sup> (8 W/ft <sup>2</sup> )
Smooth concrete <sup>1</sup>	5 cm (2 in) spacing – 129 W/m <sup>2</sup> (12 W/ft <sup>2</sup> )	5 cm (2 in) spacing – 129 W/m <sup>2</sup> (12 W/ft <sup>2</sup> )	7.6 cm (3 in) spacing – 86 W/m <sup>2</sup> (8 W/ft <sup>2</sup> )	7.6 cm (3 in) spacing – 86 W/m <sup>2</sup> (8 W/ft <sup>2</sup> )	7.6 cm (3 in) spacing – 86 W/m <sup>2</sup> (8 W/ft <sup>2</sup> )	7.6 cm (3 in) spacing – 86 W/m <sup>2</sup> (8 W/ft <sup>2</sup> )	7.6 cm (3 in) spacing – 86 W/m <sup>2</sup> (8 W/ft <sup>2</sup> )	7.6 cm (3 in) spacing – 86 W/m <sup>2</sup> (8 W/ft <sup>2</sup> )
Concrete panels	5 cm (2 in) spacing – 129 W/m <sup>2</sup> (12 W/ft <sup>2</sup> )	5 cm (2 in) spacing – 129 W/m <sup>2</sup> (12 W/ft <sup>2</sup> )	7.6 cm (3 in) spacing – 86 W/m <sup>2</sup> (8 W/ft <sup>2</sup> )	7.6 cm (3 in) spacing – 86 W/m <sup>2</sup> (8 W/ft <sup>2</sup> )	7.6 cm (3 in) spacing – 86 W/m <sup>2</sup> (8 W/ft <sup>2</sup> )	7.6 cm (3 in) spacing – 86 W/m <sup>2</sup> (8 W/ft <sup>2</sup> )	7.6 cm (3 in) spacing – 86 W/m <sup>2</sup> (8 W/ft <sup>2</sup> )	7.6 cm (3 in) spacing – 86 W/m <sup>2</sup> (8 W/ft <sup>2</sup> )
Ceramic	5 cm (2 in) spacing – 129 W/m <sup>2</sup> (12 W/ft <sup>2</sup> )	5 cm (2 in) spacing – 129 W/m <sup>2</sup> (12 W/ft <sup>2</sup> )	7.6 cm (3 in) spacing – 86 W/m <sup>2</sup> (8 W/ft <sup>2</sup> )	7.6 cm (3 in) spacing – 86 W/m <sup>2</sup> (8 W/ft <sup>2</sup> )	7.6 cm (3 in) spacing – 86 W/m <sup>2</sup> (8 W/ft <sup>2</sup> )	7.6 cm (3 in) spacing – 86 W/m <sup>2</sup> (8 W/ft <sup>2</sup> )	7.6 cm (3 in) spacing – 86 W/m <sup>2</sup> (8 W/ft <sup>2</sup> )	7.6 cm (3 in) spacing – 86 W/m <sup>2</sup> (8 W/ft <sup>2</sup> )
Acoustic membrane	5 cm (2 in) spacing – 129 W/m <sup>2</sup> (12 W/ft <sup>2</sup> )	5 cm (2 in) spacing – 129 W/m <sup>2</sup> (12 W/ft <sup>2</sup> )	7.6 cm (3 in) spacing – 86 W/m <sup>2</sup> (8 W/ft <sup>2</sup> )	7.6 cm (3 in) spacing – 86 W/m <sup>2</sup> (8 W/ft <sup>2</sup> )	7.6 cm (3 in) spacing – 86 W/m <sup>2</sup> (8 W/ft <sup>2</sup> )	7.6 cm (3 in) spacing – 86 W/m <sup>2</sup> (8 W/ft <sup>2</sup> )	7.6 cm (3 in) spacing – 86 W/m <sup>2</sup> (8 W/ft <sup>2</sup> )	7.6 cm (3 in) spacing – 86 W/m <sup>2</sup> (8 W/ft <sup>2</sup> )
Anti-fracture membrane	5 cm (2 in) spacing – 129 W/m <sup>2</sup> (12 W/ft <sup>2</sup> )	5 cm (2 in) spacing – 129 W/m <sup>2</sup> (12 W/ft <sup>2</sup> )	7.6 cm (3 in) spacing – 86 W/m <sup>2</sup> (8 W/ft <sup>2</sup> )	7.6 cm (3 in) spacing – 86 W/m <sup>2</sup> (8 W/ft <sup>2</sup> )	7.6 cm (3 in) spacing – 86 W/m <sup>2</sup> (8 W/ft <sup>2</sup> )	7.6 cm (3 in) spacing – 86 W/m <sup>2</sup> (8 W/ft <sup>2</sup> )	7.6 cm (3 in) spacing – 86 W/m <sup>2</sup> (8 W/ft <sup>2</sup> )	7.6 cm (3 in) spacing – 86 W/m <sup>2</sup> (8 W/ft <sup>2</sup> )
Scratch coat	5 cm (2 in) spacing – 129 W/m <sup>2</sup> (12 W/ft <sup>2</sup> )	5 cm (2 in) spacing – 129 W/m <sup>2</sup> (12 W/ft <sup>2</sup> )	7.6 cm (3 in) spacing – 86 W/m <sup>2</sup> (8 W/ft <sup>2</sup> )	7.6 cm (3 in) spacing – 86 W/m <sup>2</sup> (8 W/ft <sup>2</sup> )	7.6 cm (3 in) spacing – 86 W/m <sup>2</sup> (8 W/ft <sup>2</sup> )	7.6 cm (3 in) spacing – 86 W/m <sup>2</sup> (8 W/ft <sup>2</sup> )	7.6 cm (3 in) spacing – 86 W/m <sup>2</sup> (8 W/ft <sup>2</sup> )	7.6 cm (3 in) spacing – 86 W/m <sup>2</sup> (8 W/ft <sup>2</sup> )
Mortar bed <sup>1</sup>	5 cm (2 in) spacing – 129 W/m <sup>2</sup> (12 W/ft <sup>2</sup> )	5 cm (2 in) spacing – 129 W/m <sup>2</sup> (12 W/ft <sup>2</sup> )						

5 cm (2 in) spacing – 129 W/m<sup>2</sup> (12 W/ft<sup>2</sup>)

7.6 cm (3 in) spacing – 86 W/m<sup>2</sup> (8 W/ft<sup>2</sup>)

<sup>1</sup> The concrete slab (or mortar bed) must be insulated to avoid heat loss from below. FLEXTHERM also recommends that all rooms supported by the concrete slab be equipped with a FLEXTHERM floor heating system to avoid perimeter heat loss.

<sup>2</sup> For floor coverings other than ceramic and natural stone, always check with the manufacturer whether its floor covering is compatible with floor heating systems.

## Green Cable Surface 3W

Installation surface	Floor covering							
	Ceramic	Natural stone	Engineered wood <sup>2</sup>	Vinyl <sup>2</sup>	Floating floor <sup>2</sup>	Linoleum <sup>2</sup>	Parquet <sup>2</sup>	Carpet <sup>2</sup> (without rubber backing or carpet padding)
Plywood								
Smooth concrete <sup>1</sup>								
Concrete panels								
Ceramic								
Acoustic membrane								
Anti-fracture membrane								
Scratch coat								
Mortar bed <sup>1</sup>								

 7.6 cm (3 in) spacing – 129 W/m<sup>2</sup> (12 W/ft<sup>2</sup>)

 10 cm (4 in) spacing – 97 W/m<sup>2</sup> (9 W/ft<sup>2</sup>)

<sup>1</sup> The concrete slab (or mortar bed) must be insulated to avoid heat loss from below. FLEXTHERM also recommends that all rooms supported by the concrete slab be equipped with a FLEXTHERM floor heating system to avoid perimeter heat loss.

<sup>2</sup> For floor coverings other than ceramic and natural stone, always check with the manufacturer whether its floor covering is compatible with floor heating systems.

## Electrical characteristics

	Green Cable Surface 2W	Green Cable Surface 3W
Standard voltage	120 and 240 volts (208 volts available upon request)	120 and 240 volts (208 volts available upon request)
Output	6.6 W/linear m (2 W/linear ft)	9.9 W/linear m (3 W/linear ft)
Output by type of installation	5 cm (2 in) spacing – 129 W/m <sup>2</sup> (12 W/ft <sup>2</sup> ) 7.6 cm (3 in) spacing – 86 W/m <sup>2</sup> (8 W/ft <sup>2</sup> )	7.6 cm (3 in) spacing – 129 W/m <sup>2</sup> (12 W/ft <sup>2</sup> ) 10 cm (4 in) spacing – 97 W/m <sup>2</sup> (9 W/ft <sup>2</sup> )
Connection to the thermostat	Easy installation: a single cold lead is connected to the thermostat (return feed on the same cable)	Easy installation: a single cold lead is connected to the thermostat (return feed on the same cable)
Cold lead	3 m (10 ft) Two conductors and grounding	3 m (10 ft) Two conductors and grounding
Certification	CSA Canada: series type G and W space heating CSA US: series type C space heating Dry and wet environments	CSA Canada: series type G and W space heating CSA US: series type C space heating Dry and wet environments
No significant electromagnetic field emission*		

\* Based on the installation instructions included in the FLEXTHERM installation guide, the recorded EMF measurement is considered insignificant (between 0.25 mG and 0.5 mG).

**NEW!**

# GreenCable**SURFACE**XL

## FLEXTHERM quality, in an uncoupling membrane

With this new FLEXTHERM product, it is now possible to enjoy all the advantages and characteristics of the renowned Green Cable *Surface* in a format that is compatible with uncoupling membrane installation systems!

With its constant diameter, the Green Cable *Surface XL* is not only ideal for installations with an uncoupling membrane designed to receive a heating cable, but this versatile cable also lends itself perfectly to a conventional surface installation with FLEXTHERM's Universal Snap-in Gauges™ specially designed for this product.

Both robust and flexible, the Green Cable *Surface XL* is compatible with ceramic and natural stone floor coverings and produces optimal heating output ranging between 11.5W/sq. ft. and 14.5W/sq. ft. according to the type of installation.

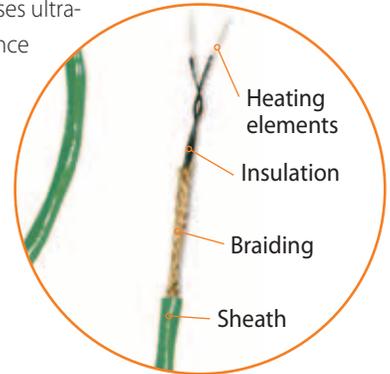
## Advantages of the Green Cable *Surface XL*

- ▮ Compatible with uncoupling membrane installation systems
- ▮ Can also be installed with FLEXTHERM's white Universal Snap-in Gauges™ (sold separately)
- ▮ Compatible with ceramic and natural stone floor coverings
- ▮ 3.6W cable available in 120V, 208V and 240V
- ▮ Robust sheath with a constant diameter
- ▮ Available in a multitude of lengths to ensure a complete coverage in rooms of all shapes and sizes
- ▮ EMF-free (electromagnetic fields)\*
- ▮ Does not dry the air nor spread dust and germs
- ▮ Requires no maintenance
- ▮ Easy installation: no return to the thermostat
- ▮ Designed for installation in a wet environment (make sure that the installation complies with the local or regional electrical code)
- ▮ Manufactured entirely at the FLEXTHERM plant, with end-to-end quality control
- ▮ CSA approved (Canada and the US)



## Unique in its design and comfort

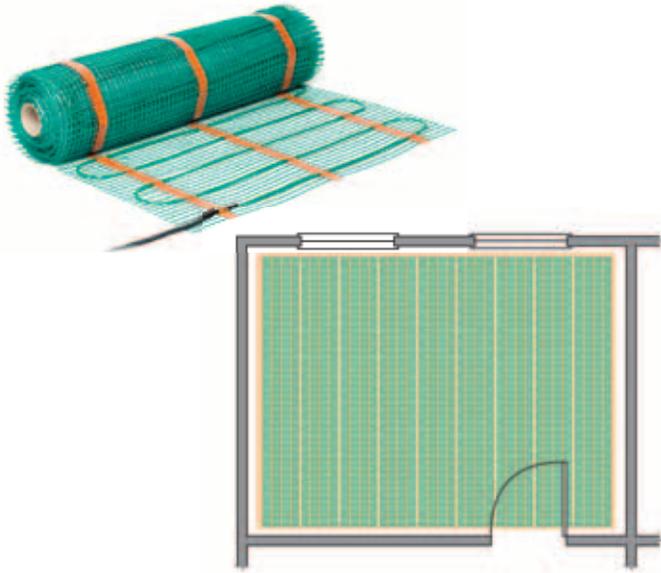
The Green Cable *Surface XL* consists of two twisted and paired heating elements, covered with a robust sheath. This innovation developed by FLEXTHERM uses ultra-resistant and high-performance components to provide you with complete comfort, peace of mind, a healthy environment and real energy savings.



Electrical characteristics	
Standard voltage	120 and 240 volts (208 volts available upon request)
Output	11.8 W/linear m (3.6 W/linear ft)
Output for an installation with <b>uncoupling membrane</b>	3 1/2 inch spacing: 12W/ft <sup>2</sup> 3 3/4 inch spacing: 11.5W/ft <sup>2</sup>
Output for an installation with <b>Universal Snap-in Gauges™</b>	3 inch spacing: 14.5W/ft <sup>2</sup>
Connection to the thermostat	Easy installation: a single cold lead is connected to the thermostat (return feed on the same cable)
Cold lead	3 m (10 ft) Two conductors and grounding
Certification	CSA Canada: series type G and W embedded heating CSA US: series type C embedded heating Dry and wet environments
No significant electromagnetic field emission*	✓

\* Based on the installation instructions included in the FLEXTHERM installation guide, the recorded EMF measurement is considered insignificant (between 0.25 mG and 0.5 mG).

# GreenCable<sup>TM</sup> MAT

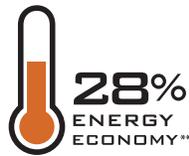


## Comfort, squared

The Green Cable™ Mat is perfect for square or rectangular rooms with no obstacles. It consists of a 3W cable with 7.6 cm (3 in) spacing on a self-adhesive substrate. Green Cable Mat is designed for installation under ceramic and natural stone flooring and can be used as a room's main or secondary heat source.

## Benefits of the Green Cable Mat

- Self-adhesive backing for easy installation
- Simplified installation: no return to the thermostat
- Solid mechanical joint for quick installation and durability
- Strong and reliable copolymer jacket
- Compatible with ceramic and natural stone coverings
- EMF-free (electromagnetic field)\*
- Does not dry the air nor spread dust or germs
- No maintenance required
- CSA approved (Canada and the US)
- Designed for installation in a wet environment (make sure that the installation complies with the local or regional electrical code)
- Manufactured entirely at the FLEXTHERM plant, with end-to-end quality control

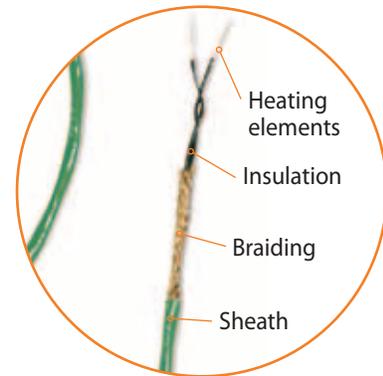


\* Based on the installation instructions included in the FLEXTHERM installation guide, the recorded EMF measurement is considered insignificant (between 0.25 mg and 0.5 mg).

\*\* In rooms heated with a FLEXTHERM floor heating system.

## Comfort that's quick to install

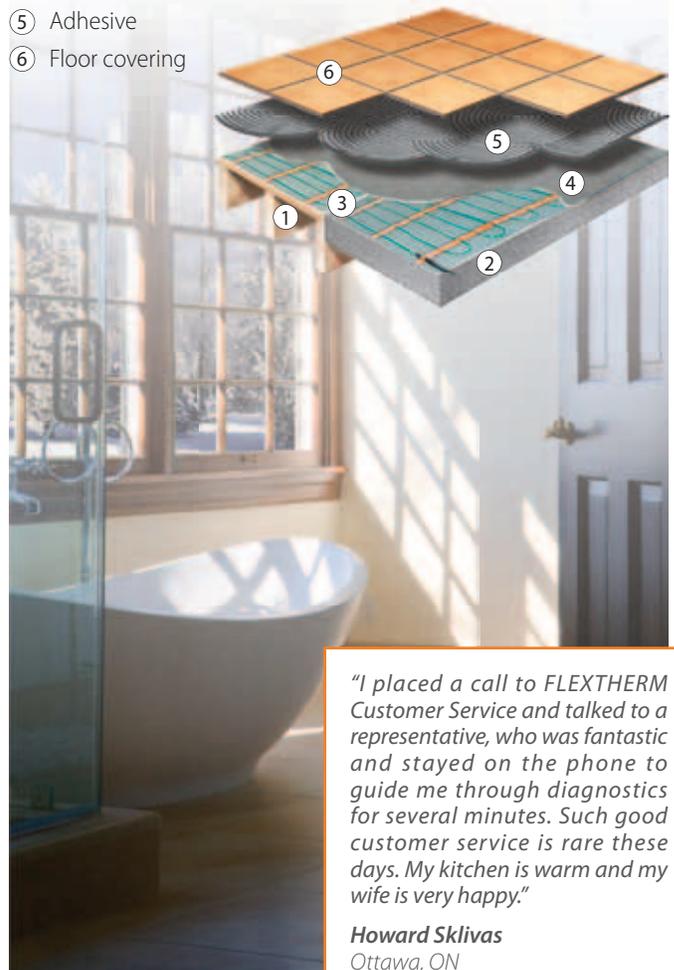
Integrated into the Green Cable Mat, the 3W heating cable consists of two twisted and paired heating elements, covered in copolymer. This innovation developed by FLEXTHERM uses ultra-resistant and high-performance components to provide you with complete comfort, peace of mind, a healthy environment and real energy savings.



## Floor coverings

The type of floor covering also has an influence on the choice of system output. Output of 129 W/m<sup>2</sup> (12 W/ft<sup>2</sup>) is reserved for ceramic and natural stone.

- ① Wood structure
- ② Concrete structure
- ③ FLEXTHERM's Green Cable Mat
- ④ Mortar or self-levelling underlayment
- ⑤ Adhesive
- ⑥ Floor covering



*"I placed a call to FLEXTHERM Customer Service and talked to a representative, who was fantastic and stayed on the phone to guide me through diagnostics for several minutes. Such good customer service is rare these days. My kitchen is warm and my wife is very happy."*

**Howard Sklivas**  
Ottawa, ON

## Compatibility of the Green Cable *Mat* with installation surfaces and floor coverings

Green Cable <i>Mat</i>		
	Floor covering	
Installation surface	Ceramic	Natural stone
Plywood	✓	✓
Smooth concrete <sup>1</sup>	✓	✓
Concrete panels	✓	✓
Ceramic	✓	✓
Acoustic membrane	✓	✓
Anti-fracture membrane	✓	✓
Scratch coat	✓	✓
Mortar bed <sup>1</sup>	✓	✓

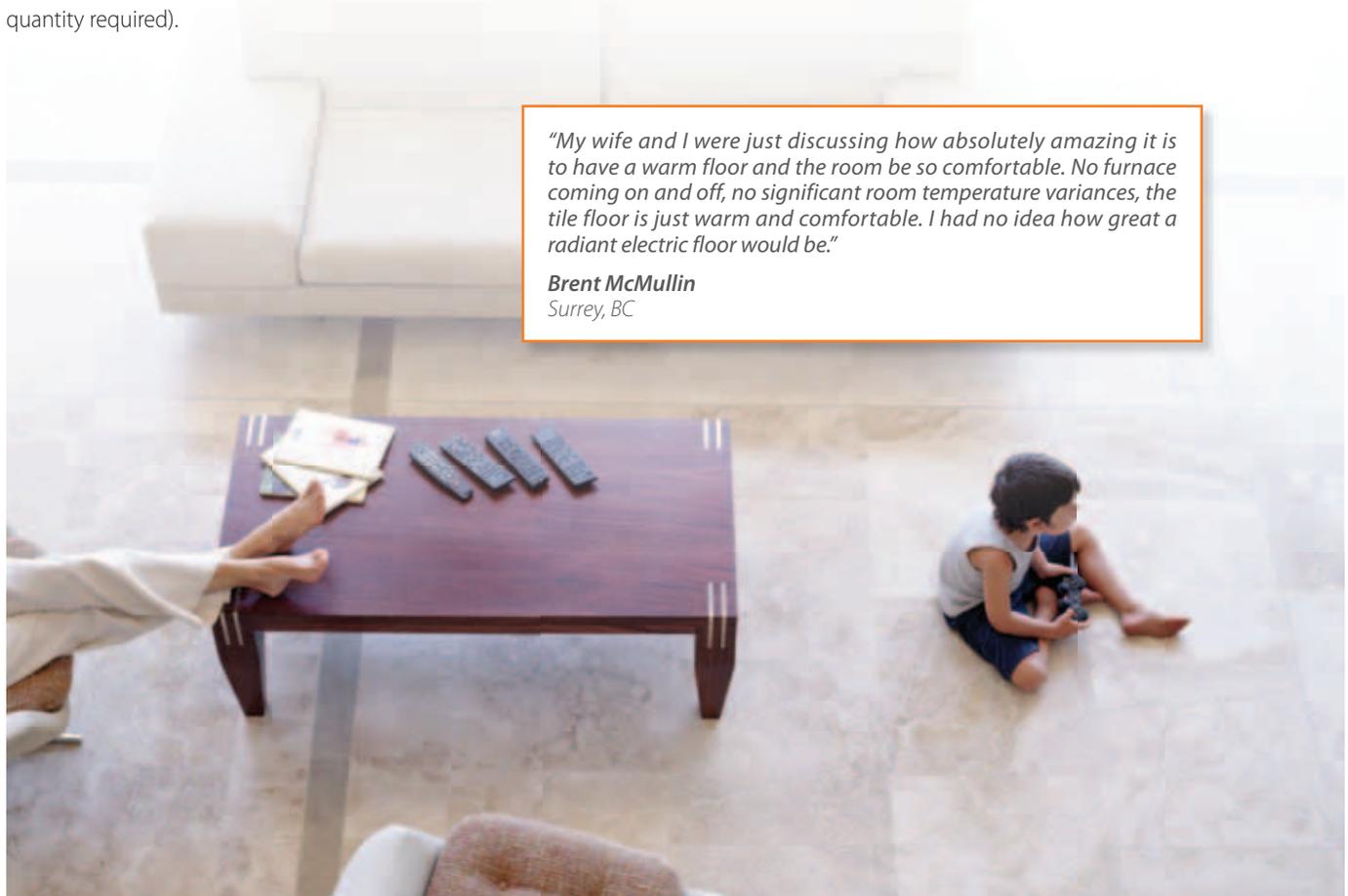
<sup>1</sup> The concrete slab (or mortar bed) must be insulated to avoid heat loss from below. FLEXTHERM also recommends that all rooms supported by the concrete slab be equipped with a FLEXTHERM floor heating system to avoid perimeter heat loss.

### A warm mat

The Green Cable *Mat* has a standard width of 61 cm (24 in) and is available in a variety of lengths and with an output of 120 volts or 240 volts. It is also available in 208 volts on special order (minimum quantity required).

Electrical characteristics	
Standard voltage	120 and 240 volts (208 volts available upon request)
Output	129 W/m <sup>2</sup> (12 W/ft <sup>2</sup> )
Connection to thermostat	Simple installation: a single cold lead is connected to the thermostat (return feed on the same cable)
Cold lead	2.1 m (7 ft) Two conductors and grounding
Certification	CSA Canada: series type G and W space heating CSA US: series type C space heating Dry and wet environments
No significant electromagnetic field emission*	✓

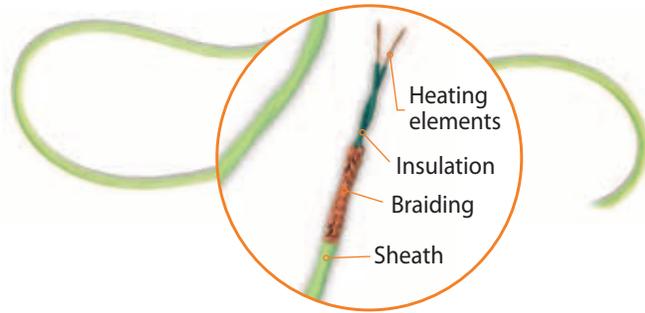
\* Based on the installation instructions included in the FLEXTHERM installation guide, the recorded EMF measurement is considered insignificant (between 0.25 mG and 0.5 mG).



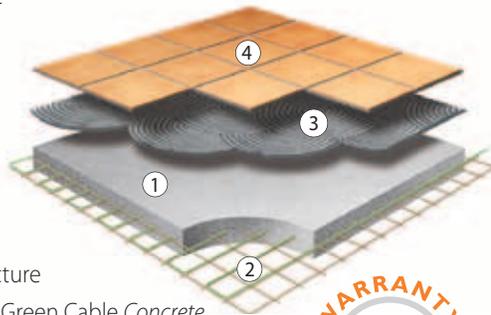
*"My wife and I were just discussing how absolutely amazing it is to have a warm floor and the room be so comfortable. No furnace coming on and off, no significant room temperature variances, the tile floor is just warm and comfortable. I had no idea how great a radiant electric floor would be."*

**Brent McMullin**  
Surrey, BC

# GreenCable CONCRETE™



- Loose cable that can be installed easily thanks to a quick and uniform anchoring system
- 5W cable producing 10 or 15W/ft<sup>2</sup>
- Bright colored product makes it easier to install on the construction site



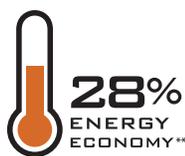
- Concrete structure
- FLEXTHERM's Green Cable Concrete (secured to the mesh)
- Adhesive
- Floor covering



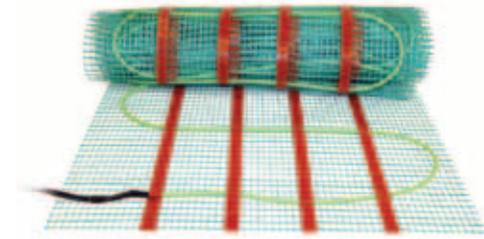
## EMBEDDING IN CONCRETE

### Concrete results

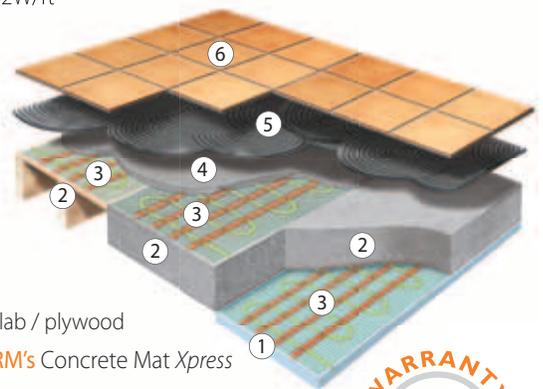
Installed in the concrete slab or under a concrete topping during construction, the Green Cable Concrete and Concrete Mat Xpress provide the ultimate in uniform comfort and generate major energy savings. These products use the concrete slab to spread heat more evenly for a longer period of time, with reduced heat loss, making them ideal for garages, basements, commercial buildings, condos and much more.



# CONCRETE MAT XPRESS™



- Can be easily installed on the insulation of the concrete slab, or on a concrete or plywood subfloor with a 1.5 inch topping
- 6W cable on a self-adhesive substrate with a 15 cm (6 in) spacing, producing 12W/ft<sup>2</sup>



- Insulation
- Concrete slab / plywood
- FLEXTHERM's Concrete Mat Xpress
- Concrete topping
- Adhesive
- Floor covering



## Why embed a system in concrete?

- Perfect for construction projects in basements, garages, commercial buildings, etc.
- Increased thermal mass effect and heat is spread more evenly due to the exceptional conductivity of the concrete mass
- No maintenance cost
- Does not increase the floor height
- Compatible with most floor coverings
- Designed specifically to be embedded in concrete
- Ideal alternative to hydronic systems
- Easy installation: no return to the thermostat
- EMF-free (electromagnetic field)\*
- Designed for installation in a wet environment (make sure that the installation complies with the local or regional electrical code)

\* Based on the installation instructions included in the FLEXTHERM installation guide, the recorded EMF measurement is considered insignificant (between 0.25 mG and 0.5 mG).

\*\* In rooms heated with a FLEXTHERM floor heating system.

## Invisible, but nothing to hide

The Green Cable *Concrete* and the Concrete Mat *Xpress* are available in a wide range of lengths for maximum coverage. The Green Cable *Concrete* includes adhesive tape to secure the heating cable to the wire mesh in the slab while the Concrete Mat *Xpress* includes plastic anchors to secure the mat to the rigid insulation.

## Steadfast, lasting comfort

The heating cable consists of two paired and twisted heating elements covered in copolymer. This innovation developed by FLEXTHERM ensures that the cable remains free of electromagnetic fields.\* The cable is built with ultra-resistant and high performance components to provide you with complete comfort, peace of mind, a healthy environment and real energy savings.

## Floor coverings

The type of floor covering also has an influence on the choice of system output. Output of 161 W/m<sup>2</sup> (15 W/ft<sup>2</sup>) is reserved for ceramic and natural stone; 108 W/m<sup>2</sup> (10 W/ft<sup>2</sup>) and 129 W/m<sup>2</sup> (12 W/ft<sup>2</sup>) lets you choose almost any floor covering. Refer to the table below for all the details.

## Compatibility of the Green Cable Concrete and Concrete Mat Xpress with floor coverings

Green Cable Concrete Concrete Mat Xpress			
Floor covering	Spacing/Power		
	Green Cable Concrete		Mat
	161 W/m <sup>2</sup> (15 W/ft <sup>2</sup> )	108 W/m <sup>2</sup> (10 W/ft <sup>2</sup> )	129 W/m <sup>2</sup> (12 W/ft <sup>2</sup> )
Ceramic	✓	✓	✓
Natural stone	✓	✓	✓
Engineered wood <sup>1</sup>		✓	✓
Vinyl <sup>1</sup>		✓	✓
Floating floor <sup>1</sup>		✓	✓
Linoleum <sup>1</sup>		✓	✓
Parquet <sup>1</sup>		✓	✓
Carpet <sup>1</sup> (without rubber backing or carpet padding)		✓	✓

<sup>1</sup> For floor coverings other than ceramic and natural stone, always check with the manufacturer of the floor covering first, to make sure its product is compatible with FLEXTHERM floor heating systems.

## Applications

Concrete slab <sup>1</sup>	<ul style="list-style-type: none"> <li>✓ Green Cable <i>Concrete</i> (cable secured to the wire mesh in the slab)</li> <li>✓ Concrete Mat <i>Xpress</i> (secured to the rigid insulation under the slab)</li> </ul>
Plywood or concrete subfloor	<ul style="list-style-type: none"> <li>✓ Concrete Mat <i>Xpress</i></li> </ul>

<sup>1</sup> The concrete slab (or mortar bed) must be insulated to avoid heat loss from below. FLEXTHERM also recommends that all rooms supported by the concrete slab be equipped with a FLEXTHERM floor heating system to avoid perimeter heat loss.

## Electrical characteristics

Standard voltage	240 volts (208 available on special order)
Output/linear m (ft)	<b>Green Cable <i>Concrete</i></b> 16.4 W/m (5 W/ft) <b>Concrete Mat <i>Xpress</i></b> 19.7 W/m (6 W/ft)
Output by type of installation	<b>Green Cable <i>Concrete</i></b> 161 W/m <sup>2</sup> (15 W/ft <sup>2</sup> ) at a 10 cm (4 in) spacing 108 W/m <sup>2</sup> (10 W/ft <sup>2</sup> ) at a 15 cm (6 in) spacing <b>Concrete Mat <i>Xpress</i></b> 129 W/m <sup>2</sup> (12 W/ft <sup>2</sup> )
Connection to thermostat	Simple installation: a single cold lead is connected to the thermostat (return feed on the same cable)
Certification	CSA Canada: series type G and W space heating CSA US: series type C space heating Dry and wet environments
No significant electromagnetic field emission*	✓

\* Based on the installation instructions included in the FLEXTHERM installation guide, the recorded EMF measurement is considered insignificant (between 0.25 mG and 0.5 mG).

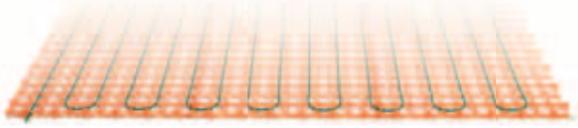


*"I have been in the tile and stone trade for 28 years now. Back in the day, in-floor heat was predominately hydronic, which meant wire mesh and floating mud floors. It was costly, labor intense and physically demanding. FLEXTHERM is the answer! Lay out the installation gauges, string the wire and continue to skim coat, or start the floor installation. It's almost too easy and time-saving!"*

**Jim Stearle**  
Milwaukee, WI

# FLEXSnap™

# FLEXSnap-R™



## Installation at the speed of FLEXTHERM!

The revolutionary FLEXSnap™ installation system is the perfect complement to the Green Cable™ Surface. Whether you choose the individual mesh or the preassembled FLEXSnap-R roll made of mesh, all it takes is a few simple steps to install the floor heating system and lay the ceramic tiles. With FLEXSnap, it only takes one day to install a floor heating system and tiles in a room. It's a lot faster and more economical than the traditional method!



# 1

Lay the FLEXSnap mesh or unroll the FLEXSnap-R and secure to a plywood or oriented strand board (OSB) subfloor or to concrete.



# 2

Install the Green Cable Surface with the FLEXGlide tool.



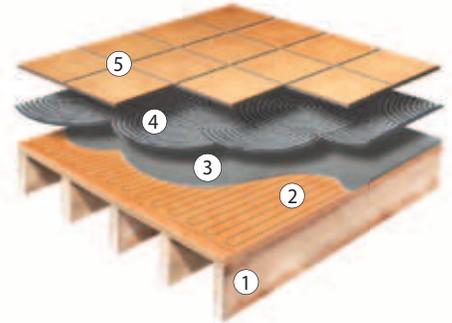
# 3

Glaze and lay the tiles in just one step!



## Floor coverings

- ① Structure (either plywood, OSB or concrete)
- ② FLEXTHERM's FLEXSnap mesh or roll of FLEXSnap-R and Green Cable Surface
- ③ Mortar or self-levelling underlayment
- ④ Adhesive
- ⑤ Floor covering



## Benefits of the FLEXSnap system

- Single-day installation (grout is the only thing left to do)
- No need to double the plywood in the floor's structure (tested by the *Tile Council of North America* and rated "Extra Heavy")
- The FLEXGlide tool lets you install the heating cable while standing
- The cable is protected throughout the installation from damage caused by heavy objects
- More uniform surface heat due to a larger thermal mass
- Reinforces the floor's structure, thereby diminishing perceived vibrations
- Allows for a more uniform transition between a tiled, heated floor and an adjacent natural hardwood floor

## Characteristics

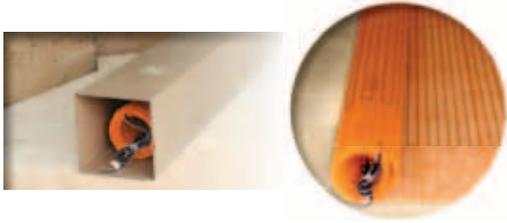
- 31.4 cm x 31.4 cm (12 3/8 in x 12 3/8 in) mesh with an 8 mm (5/16 in) thickness or the 0.9 m x 15.2 m (3 ft x 50 ft) preassembled FLEXSnap-R roll made of FLEXSnap mesh
- Socket and spigot ends for easy assembly
- Holes to anchor the mesh to the floor
- Grooves spaced at 2.5 cm (1 in) intervals for inserting the cable according to the type of installation

The FLEXSnap system adapts to all floors, no matter what their size. The mesh is easy to cut with a utility knife and conforms to the contours of the room, and any surface uncovered by the FLEXSnap-R can be filled with individual FLEXSnap tiles.

*"FLEXTHERM's FLEXSnap system was a pleasure to work with. More importantly, your support staff was simply outstanding! Thanks for all the help."*

**Andre Leblanc**  
North Bay, ON

# InnoFLEX™



## Easy. Quick. Customized.

Thanks to the new InnoFLEX, installing a floor heating system can now be counted in minutes! FLEXTHERM'S FLEXSnap installation system and Green Cable Surface come together as InnoFLEX, the brand new floor heating system tailored to fit any room and the objects in it perfectly. In addition to offering all of the advantages of FLEXSnap and the Green Cable Surface, InnoFLEX makes every installation extremely fast and hassle-free since the heated cable is already inserted in the mesh!



**1** Submit a plan of the room and confirm your order through your distributor.



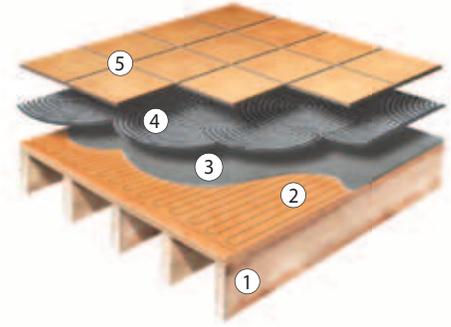
**2** Shipped within 5 business days, simply unroll and secure to a plywood or oriented strand board (OSB) subfloor or to concrete.



**3** Glaze and lay the tiles in one step!



- ① Structure (either plywood, OSB or concrete)
- ② FLEXTHERM's InnoFLEX system
- ③ Mortar or self-levelling underlayment
- ④ Adhesive
- ⑤ Floor covering

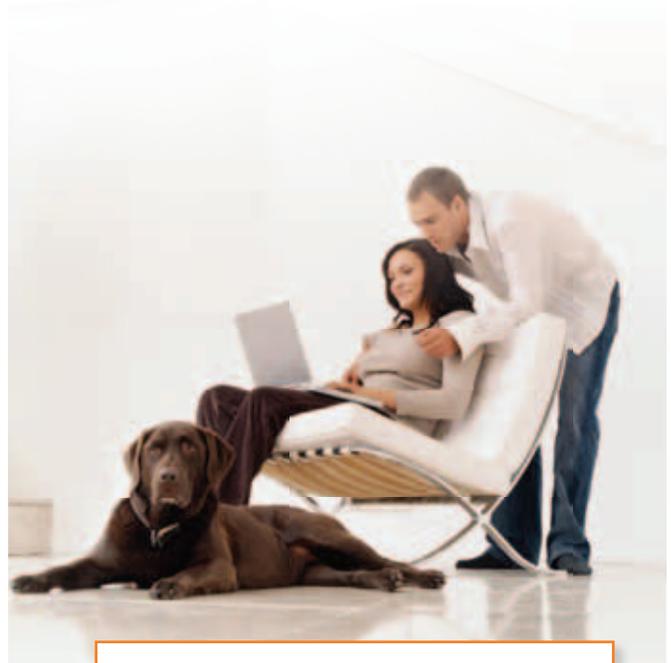


You need a hand to draw your floor plan? Our Customer Service team will be happy to help you! Call us at 1 800 353-9843 or send an email at [client@flextherm.com](mailto:client@flextherm.com)

## A revolutionary system

FLEXSnap, FLEXSnap-R and InnoFLEX are compatible with installations:

- on a plywood or OSB subfloor sitting on joists spaced no more than 16 inches on center, or on concrete
- that use polymer-modified mortar or self-levelling underlayment, recommended for use with the FLEXSnap system both by mortar or self-levelling underlayment manufacturers and FLEXTHERM
- with ceramic floor coverings



*"I had your FLEXTHERM floor heating system installed in 3 rooms in my new townhouse and it is absolutely the best addition I could have made to my home. The system is fast, efficient, inexpensive to operate and easy to activate."*

**Tom Basinski**  
Getzville, NY

**NEW!**  
FLEXTHERM programmable thermostats

**INSTINCT**  
*Connect*

FLP45



**INSTINCT**

FLP40



**Control your comfort anywhere, anytime**

As a homeowner, you want the convenience of controlling your thermostat whenever you want, whether you are home or not? Maybe you want to easily monitor your floor heating system's performance. Or as a hotel manager, you want to remotely control the temperature in every room?

FLEXTHERM's **INSTINCT Connect** is the solution! You can program and control your thermostat remotely via your smart phone, your tablet, your laptop or your computer,\* or you can choose the manual mode. Multiple thermostats can be controlled at once, making it the ideal choice for hotels, offices or any commercial building.

\* Remote access requires an internet connection and a Neviweb® interface (FLWEB45). One Neviweb® interface can control multiple thermostats. Product sold separately.



**Advantages of the INSTINCT and INSTINCT Connect thermostats**

- Two extremely precise temperature sensors: one for the ground (probe) and the other for the ambient air
- Pre-programmed for quick setup and easily programmable if needed
- Two modes: automatic (4 events) or manual
- Adaptive function (early start) to determine when the system needs to activate to reach the desired temperature based on your specific environment
- Up to four temperature adjustments (events) can be programmed per day (5:2 or 7:0)
- Energy monitoring feature provides data over 24 hours and 30 days
- Protection against malfunction ensured by a built-in ground fault circuit interrupter (GFCI)
- Display modes: °C or °F, 24 h or 12 h



**Programming a thermostat has never been so easy**

Not only will you be seduced by its attractive, chic and discrete design as well as its modern backlit screen, but you will also be surprised and impressed by its quick and intuitive programming. This thermostat is offered preprogrammed based on typical usage; you can keep these settings, change them or even choose the manual mode. With FLEXTHERM's **INSTINCT** thermostat, control is at your fingertips!

General characteristics INSTINCT and INSTINCT Connect	
Temperature range	5 °C to 30 °C (40 °F to 86 °F)
Temperature control options	Floor: floor temperature only Room: ambient temperature is controlled (not recommended with floor heating systems) Room limit: ambient temperature is controlled according to the settings selected for the floor
Sensor precision	± 0.4 °C (0.7 °F)
Floor probe	Length of connecting wire: 4.5 m (15 ft)
Memory	No battery required. Programming is saved in the memory and is not affected by outages that last less than eight hours.
Certifications	Class A GFCI tested under UL standard no. 943 & CSA C22.2 no. 144.1 Thermostat tested under UL standard no. 873 & CSA C22.2 no. 24

Electrical characteristics	
Product no.	FLP45-120/240GA (INSTINCT Connect) FLP40-120/240GA (INSTINCT)
Supply	120/208/240 VAC, 50/60 Hz
Resistive load	15A
Capacity	1,800 W at 120 V, 3,600 W at 240 V
Connection	2-pole relay
GFCI	Class A (5 mA)
Multiple circuit connection	Expansion units available

## Programmable electronic thermostat

### Form, function and quality

It all starts with a sleek and modern design that fits into any décor. You will also appreciate the simple and intuitive programming capabilities as well as the large backlit display and simple user interface.

FLP35



### Advantages of the programmable electronic thermostat

- Two extremely precise temperature sensors: one for the ground (probe) and the other for the ambient air
- Pre-programmed for quick setup
- Two modes: automatic (4 events) or manual
- Adaptive function (early start) to determine when the system needs to activate to reach the desired temperature based on your specific environment
- Up to four temperature adjustments (events) can be programmed per day (5:2, 6:1 or 7:0)
- Energy monitoring feature provides data over 2 days, 30 days or 365 days
- Protection against malfunction ensured by a built-in ground fault circuit interrupter (GFCI)
- Display modes: °C or °F, 24 h or 12 h



### General characteristics

Temperature range	5 °C to 40 °C (40 °F to 104 °F) Floor limit range: 5 °C to 40 °C (40 °F to 104 °F) Ambient temperature: 0 °C to 40 °C (32 °F to 104 °F)
Temperature control options	Floor: floor temperature only Room: ambient temperature is controlled (not recommended with floor heating systems) Regulator: sensor not used, operates during desired % of 30 minute periods (not recommended with floor heating systems) Room limit: ambient temperature is controlled according to the settings selected for the floor
Sensor precision	± 0.4 °C (0.7 °F)
Floor probe	Length of connecting wire: 3 m (10 ft)
Memory	No battery required. An internal circuit retains the time and date during power outages that last less than two hours. Programming is saved in the memory and is not affected by outages.
Certifications	Class A GFCI tested under UL standard no. 943 4 <sup>th</sup> ed. & CSA C22.2 no. 144.1-06 Thermostat tested under UL standard no. 873 & CSA C22.2 no. 24

### Electrical characteristics

Product no.	FLP35-120/240GA
Supply	120/208/240 VAC, 50/60 Hz
Resistive load	15 A
Capacity	1,800 W at 120 V, 3,600 W at 240 V
Connection	2-pole relay
GFCI	Class A (5 mA)
Multiple circuit connection	Expansion units available

## Programmable electronic thermostat

### Sleek, no fuss

Control your comfort levels at all times! The non-programmable electronic thermostat is available in manual mode to quickly and effectively set your temperature.

FLK30



### Advantages of the non-programmable electronic thermostat

- Probe placed in the floor detects the temperature at floor level
- Protection against malfunction ensured by a built-in ground fault circuit interrupter (GFCI)
- Display modes: °C or °F



### General characteristics

Temperature range	5 °C to 40 °C (40 °F to 104 °F) Ambient temperature: 0 °C to 40 °C (32 °F to 104 °F)
Temperature control options	Floor: floor temperature only Regulator: sensor not used, operates during desired % of 30 minute periods (not recommended with floor heating systems)
Sensor precision	± 0.4 °C (0.7 °F)
Floor probe	Length of connecting wire: 3 m (10 ft)
Memory	No battery required. Temperature setting is saved in the memory and is not affected by outages.
Certifications	Class A GFCI tested under UL standard no. 943 4 <sup>th</sup> ed. & CSA C22.2 no. 144.1-06 Thermostat tested under UL standard no. 873 & CSA C22.2 no. 24

### Electrical characteristics

Product no.	FLK30-120/240GA
Supply	120/208/240 VAC, 50/60 Hz
Resistive load	15 A
Capacity	1,800 W at 120 V, 3,600 W at 240 V
Connection	2-pole relay
GFCI	Class A (5 mA)
Multiple circuit connection	Expansion units available

## Expansion units

**FLETR  
1310**



Compatible with the FLP40  
and FLP45 thermostats

**FLE30**



Compatible with the FLP35  
and FLK 30 thermostats

### Think big!

Expansion units make it easier to cover large rooms that require a system exceeding 15 A. To avoid using several thermostats or painstakingly connecting relays and circuit breakers, you can install expansion units. Each of the expansion units will control its section of the floor according to the directions received from the thermostat.

### Benefits of the expansion units

- Simple daisy chain installation
- The thermostat can control an infinite number of expansion units
- FLETR1310 unit compatible with the INSTINCT (FLP40) and INSTINCT Connect (FLP45) programmable thermostats
- FLE30 unit compatible with the FLP35 programmable thermostat and the FLK30 non-programmable thermostat
- Each unit supports a load of 15 A (the number of units required depends on the installation load)
- System can operate at different voltages (120 V, 208 V or 240 V)
- On/Off switch allows independent control of each floor heating section controlled by an expansion unit
- Protection against malfunction ensured by a ground fault circuit interrupter (GFCI)



### Electrical characteristics

Product No.	FLETR1310-120/240GA FLE30-120/240GA
Resistive load	15 A
Capacity	1,800 W at 120 V 3,600 W at 240 V
Connection	2-pole relay
GFCI	Class A

*"We installed your product in our bathroom this summer and are really amazed by the results of this floor heating system! Your product has won me over. Warm feet on ceramic, which is normally cold, is such a great feeling!"*

**Nathalie Lalonde**  
Gatineau, QC

## FLEXGlide™



### A heated floor minus the back pain!

The FLEXGlide™ was specially designed for use with the FLEXSnap installation system, which allows you to install a floor heating system in one room in a single day. The FLEXGlide is easy to use: just screw it into the end of a standard wooden handle and insert the Green Cable Surface to install the cable while standing.



The FLEXGlide's wheel is perfectly matched with the FLEXSnap mesh to ensure an easy and uniform installation of the heating cable, even when changing directions or going around obstacles..



## Repair kits

Accidents can happen so fast! Here are a few kits to repair a cable.

Repair kits		
Product No.	Cable Type	Contents
FSK-03	Green Cable <i>Surface</i>	Six black heat shrink tubes, 3 mm x 1.9 cm (1/8 in x 3/4 in)
	Econo Yellow Cable (cable no longer available)	Six black heat shrink tubes, 6 mm x 1.27 cm (1/4 in x 1/2 in) One black heat shrink tube, 8 mm x 30.5 cm (5/16 in x 1 ft)
FSK-05	Green Cable <i>Concrete</i>	One paired resistance, 0.051 ohms/m 30.5 cm (1 ft) One metal braid (copper), 91.4 cm (3 ft) Wire solder, 30.5 cm (1 ft)
FSK-01	Pro Series Cable	Three black heat shrink tubes (small), 3 mm x 5.1 cm (1/8 in x 2 in) Six brown heat shrink tubes, 3 mm x 3.2 cm (1/8 in x 1 1/4 in) Six black heat shrink tubes (large), 6 mm x 1.9 cm (1/4 in x 3/4 in) One heating resistance, 0.045 ohms/m 30.5 cm (1 ft) One metal braid, 91.4 cm (3 ft) Wire solder, 30.5 cm (1 ft)

*"I am very pleased to see that there is a large selection of distributors and retailers of FLEXTHERM products."*

**Lorraine Buchanan**  
Outaouais, QC

## Other accessories

FLEXTHERM offers the following accessories to help you install its floor heating systems:

Other accessories	
Product No.	Description
FLWEB45	Neviweb® interface, which allows for the remote control of the INSTINCT <i>Connect</i> thermostat (FLP45)
FLS1240	Thermal floor probe - 4.6 m (15 ft) wire, compatible with the FLP40 and FLP45 programmable thermostats
FLS1250	Thermal floor probe for concrete (includes conduit) - 3 m (10 ft) wire, compatible with the FLP40 and FLP45 programmable thermostats
FLS1260	Thermal floor probe - 3 m (10 ft) wire, compatible with the FLP30 and FLP35 programmable thermostats and FLK30 non-programmable thermostat
FLS1260T	Conduit for thermal probe (concrete burial)
GSGO-C	Universal Snap-in Gauges™, 300 units/box
GSGO10	Universal Snap-in Gauges™, 10 units/box
HGSGG	Universal Snap-in Gauges™ for Green Cable <i>Surface XL</i> , 20 units/box + glue stick
FLG25	Hot glue sticks, 25 units/package
FLGH25	Hot glue sticks for concrete, 25 units/package
FLR240	Relay and connectors for installations exceeding 15A



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