

**Heat Link**<sup>®</sup>  
The **Floor Heat** System

**Hands down, it's the best heating system around!**





# Radiant Floor Heating

## What is HeatLink® Radiant Floor Heating?

A heating system where warm water is pumped from a boiler through engineered pipes laid underneath the floor surface. The heat in these pipes radiates to the surface and rises evenly throughout the room above.

## What does it feel like?

Like walking on a warm (but not hot) beach, without the sand. It is a comfortable heat, designed to be no higher than 88°F (31°C). The heat is even, and the surfaces stay warm to the touch.

## What does it sound like?

HeatLink® radiant floor heating is quiet, because no furnace fan is required. There are no plenums or ducts to echo furnace noises around your home; or radiator expansion noises.

## What does it look like?

Your floor will look no different than it does now. However, tile, hardwood, slate or marble are now serious flooring options, as floor heating will keep them warm.

## What is life with HeatLink® radiant floor heating like?

*The floors are warm*, so you'll spend less time looking for your slippers, and more time on the floor with the kids, or your paper.

*Furniture arrangements* can be as free and creative as you want, as there are no radiators or grills to work around... it's all in the floors.

*Allergy sufferers breathe easier* with HeatLink® floor heating systems. Dust and air borne allergens aren't being blown about the house through the ductwork of a forced air heating system. There will be room on your chair-side table for a beverage, and a snack, because the tissue box won't be needed.

*No drafts, and no hot and cold spots* with HeatLink® radiant floor heating. Rest actually happens when you sit in your favorite chair, because the continuous personal temperature adjustments made with woolens and blankets are no longer necessary ...*the heat in your home is even.*

## What is the difference between HeatLink® radiant floor heating and a convective system?

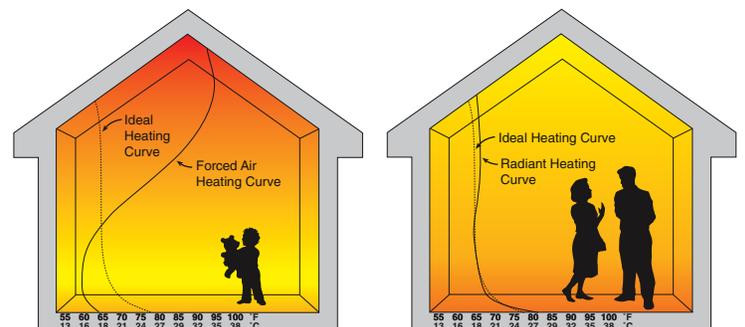
Forced-air and baseboard heating systems are convective systems because they use air as the primary heat-transfer medium. Typically, heating outlets or baseboards are placed on outside walls, and the system is designed to fill the area with warm air until the preset temperature on the thermostat is reached. The warm air rises to the ceiling until it cools, falling to the floor for return to the furnace or to fill the convective vacuum created by a baseboard heater.

With HeatLink® radiant floor heating, the heat is not at the ceiling, but where you are. A radiant system warms objects directly, like people and furnishings, to a comfortable temperature.

## What explains the effective and efficient heat of the radiant system?

With *convective systems*, air stratification and heat loss to the ceiling are significant. When super-heated air from a furnace or baseboard heater flows against relatively cold exterior walls, the increased temperature differential results in a stack effect that draws cold air into the house through any cracks. Air infiltration and exfiltration increase as the difference between inside and outside temperatures becomes larger.

With *radiant systems*, air-infiltration heat loss is reduced, as air is only warmed to the temperature of the thermostat setting (which is usually lower to start with). The



In a forced air system, hot air accumulates at the ceiling and leaves the space near the floor cool. HeatLink® radiant floor heating keeps objects and people in the living space warm.

## *Let's put in radiant floor heating!*



© Norbert Schaefer/CORBIS

temperature differential at the outside wall is less, thereby reducing air infiltration. The heating system operates at the lowest possible water temperature to heat the structure. Also, glass, particularly low-e glass, reflects long-wave radiance produced by radiant heating systems. This greenhouse effect serves to contain radiant energy within the heated building cavity, reducing heat loss.

### ***What about humidity control?***

Although the radiant system only deals with sensible heat and not humidity control, humidification is usually unnecessary because radiant heat does not alter air moisture content, which is generally adequate if the air isn't dried out by combustion or by increased infiltration of cold, dry outside air.

### ***What about controls?***

State-of-the-art thermostats let you determine what areas of the home are heated and when. You can have the master bathroom warm at 6 a.m. weekday mornings, but at 9 a.m. on the weekends. HeatLink® radiant floor heating allows for individually customized room temperature levels, different temperatures in different rooms.

### ***What about maintenance?***

Trained service people are readily available in virtually every community. Components require minimal maintenance (no ducts to clean, no filters to change, no fan belts to replace). Hot water heating components generally require less maintenance, and usually outlast forced air furnace components. Boilers may require cleaning, depending on the manufacturer and type. The only thing you need to do is check the water bi-annually for corrosion.

### ***What about the future...expanding the home?***

Planning for the future is easy with a boiler. Most hydronic heating systems can easily be extended to accommodate minor additions by adding an additional loop of pipe. Size your boiler to allow for the addition of extra zones for pools, snow melting, whirlpools, etc. (Try that with forced air or electric heat!) Heat exchangers allow you to use your boiler to provide domestic hot water, hot water for whirlpool spas, pools, pool surrounds, driveway snow and ice melting. Pipe can always be roughed-in for future additions.

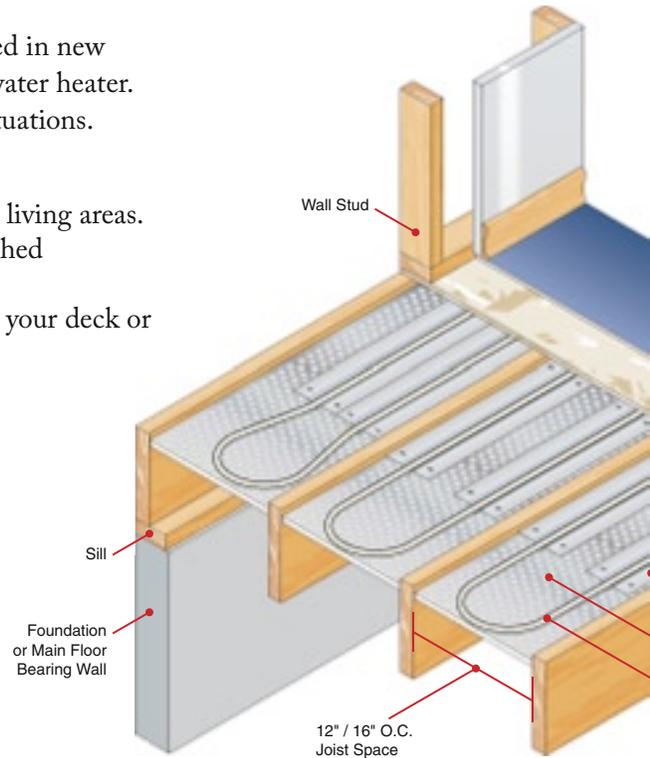
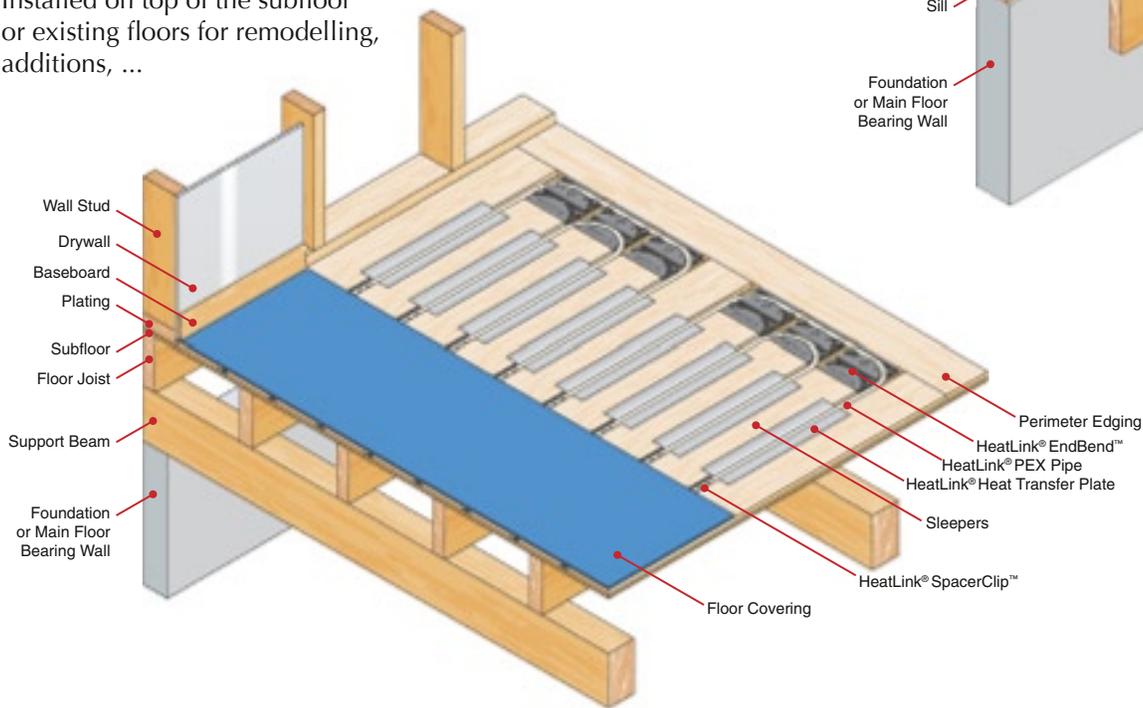
*The type of floor heating installation depends on your project.*

It used to be that floor heating was something that could only be installed in new homes, and was usually just put in the basement and run off of the hot water heater. Things have changed, and floor heating can be installed in all types of situations.

- Consider the possibilities:
- In the floor joists.
  - DryAbove™ on basement floors and sunken living areas.
  - Underneath the floor boards in your unfinished basement, or where there are ceiling tiles.
  - Put an extra room above the garage, or turn your deck or balcony into extra indoor living space.

## DryAbove™ System

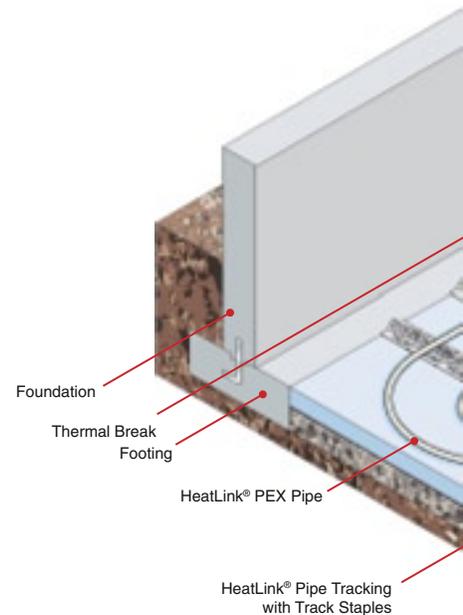
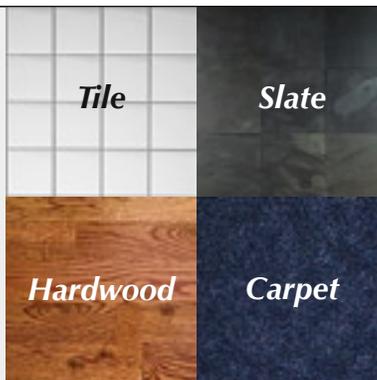
Installed on top of the subfloor or existing floors for remodelling, additions, ...



## Floor coverings

Radiant floor heating is compatible with all types of floor coverings, even hardwood, so you can have the type of floor that you want.

With floor warming, your floors can be comfortable all year long. The system maintains a minimum floor temperature during spring and fall when heating may not be required, but warm floors are still desired.

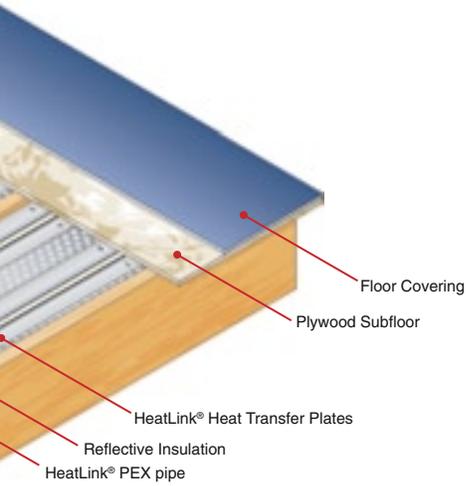


# Look at all the choices!



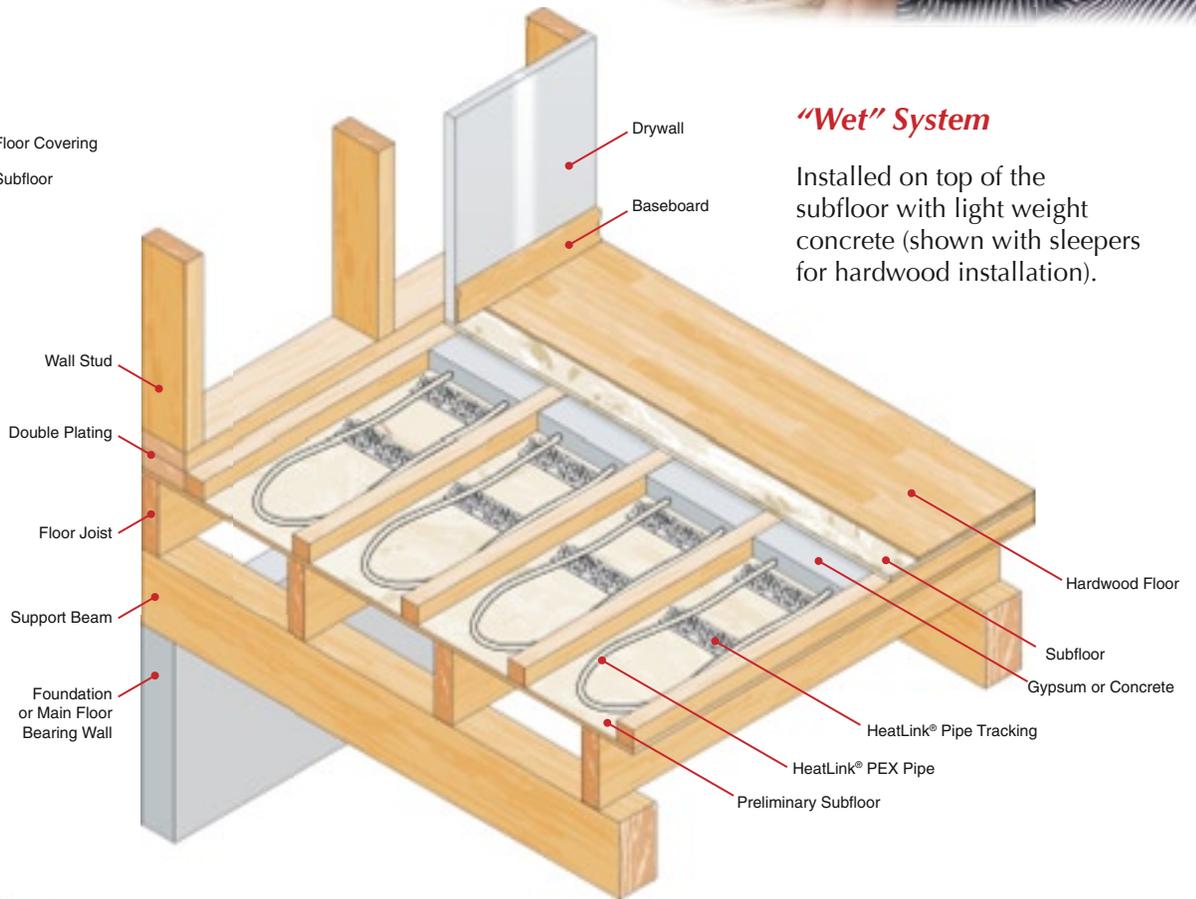
## DryBelow™ System

Installed between floor joists beneath the subfloor for retrofits, upper floors, ...



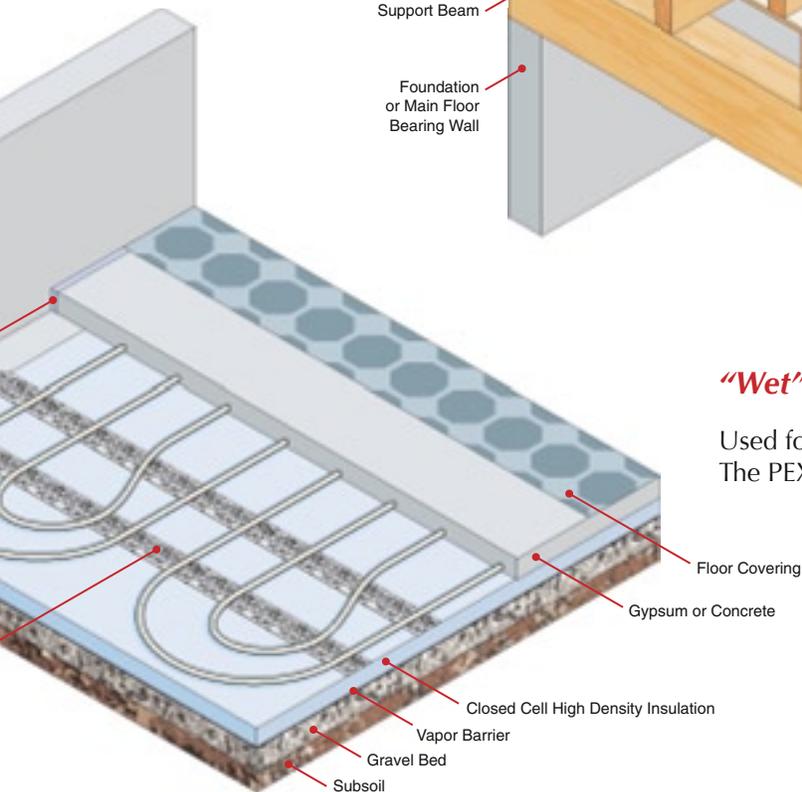
## “Wet” System

Installed on top of the subfloor with light weight concrete (shown with sleepers for hardwood installation).



## “Wet” System

Used for basements or slab-on-grade homes. The PEX tubing is encased in a concrete topping.





# You're in Control

*... because every family has different needs, and every home is unique.*



A traditional forced air system with one central thermostat may need to be set higher than necessary to ensure that some parts of the house get sufficient heat.

With HeatLink® radiant floor heating, a house can be divided into different heating zones. Each zone will have its own thermostat that will set its temperature independently from the other zones. This means that you can heat only the rooms that need heat. Rooms that don't need to be heated can be put into "setback," a lower user adjustable temperature, to save energy.

Add a timer thermostat to automatically switch between normal operation and setback operation on a set schedule. This schedule will let you automatically lower the temperature of your home when no one's home and bring the temperature back up to greet you upon your return.



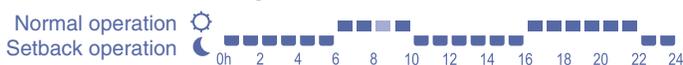
**Example:**

Living area is heated in the morning and evening, and setback during the day and at night.

Bedrooms are heated during the night, and setback during the day.

Less frequently used rooms can be manually switched to and from setback mode.

**Setback Channel 1 - Living Area**



**Setback Channel 2 - Bedrooms**



24 hour schedule

# Heat Link® Snow Melting

*... because  
you have  
better things  
to do with  
your time.*

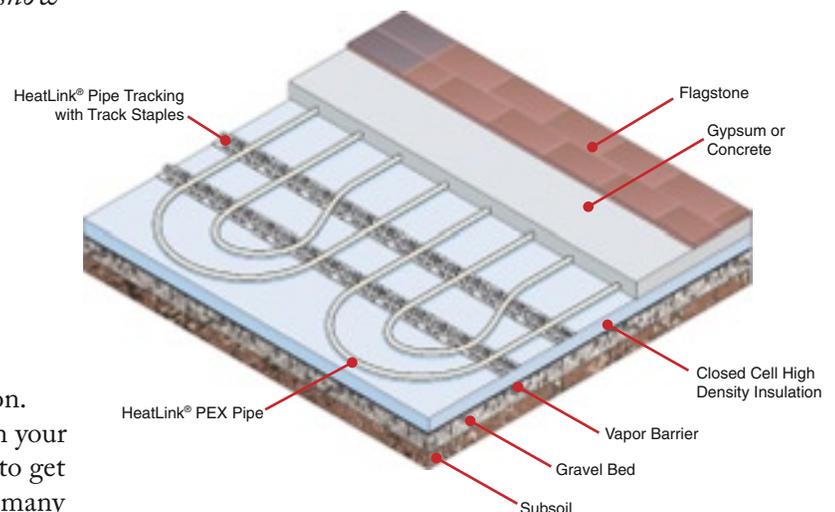


*Imagine sitting in a comfortable chair in your front room, sipping your early morning coffee, while watching the snow fall gently to the ground. You sit in awe of the wonder of a white winter, as you listen to the sound of... your neighbor's snow shovel. You let a little giggle escape from your mouth, as you put your feet up and look over your **snow melted** driveway. Later that day you and your family are out building snowmen, while the other neighbors continue to dig-out.*

A white winter truly is a wonder to behold, but health risks, time constraints, and liability issues continually cast a shadow on the beauty and fun of the winter season. Whether you'd rather be out skiing, would like to live in your home past retirement, or you lose precious sleep trying to get up and shovel before the paper carrier arrives, there are many reasons to consider snow melting.

HeatLink® snow melting is much like floor heating. It is a hydronic system, where heated fluid is pumped through pipes under the surface, and they radiate heat to the slab above. The pipes are connected to the boiler in your home. A snow/ice detector, sensor, and a melting control, activate and control the snow melting system based on time, moisture detection and slab temperature set point, and cold weather cutoff.

Snow melting systems are designed using several methods. It can be used with sand and interlocking bricks, insulating base and concrete, asphalt, concrete and flagstone. HeatLink® recommends a 2" closed cell high density ground insulation barrier to ensure optimum energy usage is achieved. As well, it ensures quicker slab response time.



## HeatLink<sup>®</sup>...the system that Links it all together!

Choosing to install a HeatLink<sup>®</sup> radiant floor heating system comes with many other advantages than those listed in the previous pages. Because it's a system, and our own system, all the parts you need come from one place. The HeatLink<sup>®</sup> system was designed by former floor heating installers. Their knowledge and experience is unsurpassed in North America. HeatLink<sup>®</sup> is constantly analyzing, innovating, and redesigning, to apply the latest, best and most appropriate technology to our products. HeatLink<sup>®</sup> pipes, molds and manifolds are manufactured in North America, and are specifically designed for the North American building market.

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*HeatLink<sup>®</sup> is acknowledged as the easiest hydronic radiant floor heating system to install. Installer approval is a compliment you can't ignore.*

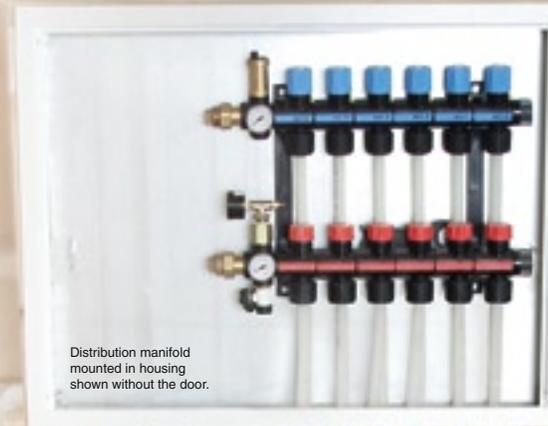
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Not only do we keep the end-user – you the homeowner, in mind, but also your installer. Our close contacts with the building industry keeps us apprised of what is working and what would work better. Through our regular training seminars we meet and converse with installers, wholesalers, and engineers – a mutually beneficial arrangement that in the end benefits you, the homeowner. HeatLink<sup>®</sup> is acknowledged as the easiest hydronic radiant floor heating system to install. Installer approval is a compliment you can't ignore.

Our engineering staff have made it easier for your installer by providing software to help make the best design decisions for your home. Our Design Suite software assists them in choosing what your home requires, and the best way to lay it out. It's all linked together, and you can add snow melting and radiant cooling too!

### Warranty

HeatLink<sup>®</sup> stands behind its system with a 25-year warranty on all PEX pipe which incorporates a 10-year consequential damage warranty.



Distribution manifold mounted in housing shown without the door.

**Visit our website for more information**  
[www.heatlinkgroup.com](http://www.heatlinkgroup.com)

**Ask your contractor about installing**  
**HeatLink<sup>®</sup> radiant floor heating in your home.**

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