

# Engineered Heating Cable Systems



ROOF ICE MELT SYSTEMS



PAVEMENT SNOWMELTING



RADIANT FLOOR HEATING



PIPE HEAT TRACING

## Product Catalog



[www.bylinusa.com](http://www.bylinusa.com)



FROST HEAVE PREVENTION

**Bylin Engineered Systems** is the industry leader in supplying high performance and reliable heating cable systems for

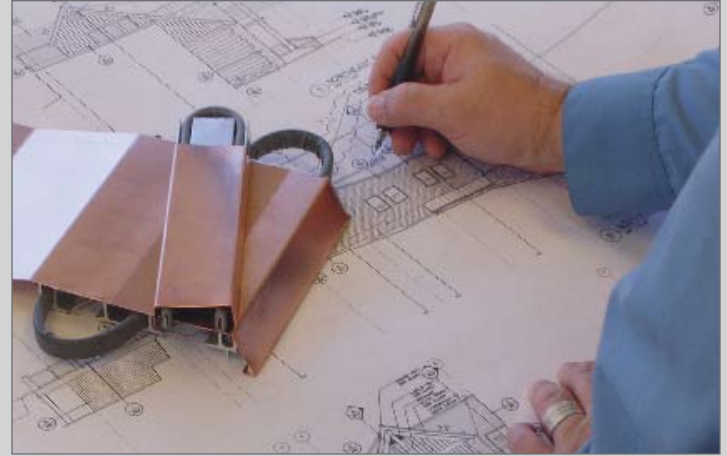
- Roof ice dam and icicle prevention
- Automatic pavement snowmelting
- Radiant floor warming
- Pipe heat tracing for freeze protection and process maintenance
- Cold storage frost heave prevention



Since 1980, Bylin Engineered Systems has successfully engineered and supplied heating cable systems for a variety of commercial, residential and industrial applications throughout the United States and Canada.

Commercial and residential customers have benefited from all of our products - from the Pavement Snowmelt System to keep the plaza area around the Sears Tower in Chicago clear of snow and ice, to the residential homes in Rocky Mountain resort areas using our patented Roof Ice Melt System to keep damaging icicles and ice dams from forming on their roofs.

Coupling high performance heating cables with custom control systems, we provide the most energy efficient engineered heating systems available.



Bylin Engineered Systems' engineering team has over 80 years of combined experience in providing custom heating cable system designs for residential applications, large commercial development projects and industrial heat tracing applications.



Bylin typically maintains over 200,000 feet of heating cable in inventory for immediate shipment to our customers.

**“I have used [Bylin] products on new construction and remodels. Their designed systems perform flawlessly and I have had no problems with any of them. The only complaint I have had was from an owner who later said he wished he had done his driveway too.”**

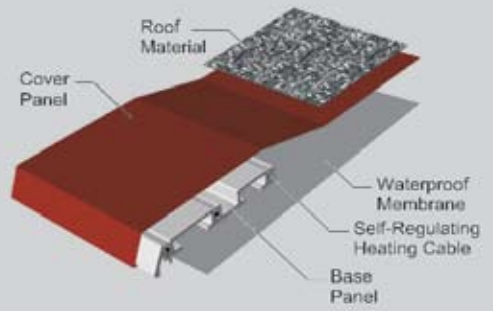
**Paul Griggs, Griggs Custom Homes - N. CA**

**“Your Roof Ice Melt System saves me over a thousand dollars in broken red clay roof tiles and ensuing leaks every winter season. I’ve had no repairs or replacements since it was installed in 2000. It just works every time.”**

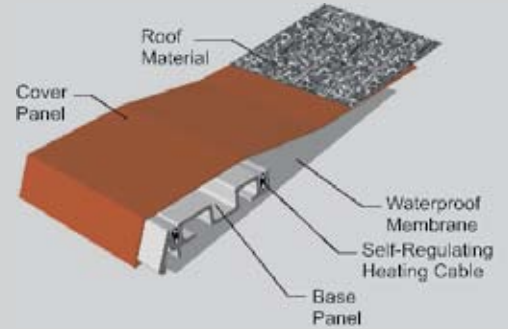
**Philip R. Horan, Upstate NY Homeowner**

# ROOF ICE MELT SYSTEMS

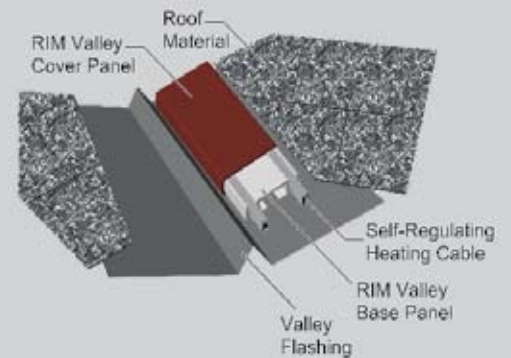
The Bylin Roof Ice Melt System has successfully prevented ice dam and icicle formation on roofs across the country for over a decade. Unlike other solutions, such as a cold roof design or zigzag heating cable, Bylin's RIM Systems are successful at preventing ice dams and icicles in moderate and heavy snow regions. Bylin's patented RIM and RIM2 Systems specifically target the problem areas of a roof regardless of the design, complexities, or snow load.



**RIM EAVE PANEL - Class 1**



**RIM2 EAVE PANEL - Class 2**



**RIM VALLEY PANEL**

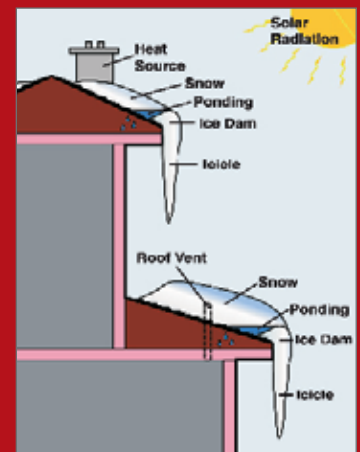
Area Classifications, established by Bylin, determine which Bylin Roof Ice Melt products are right for the job by identifying heavy, moderate, and light snow load areas.



**RIM Systems eliminate:**

- icicle formation
- ice dam problems

The success of eliminating ice dam and icicle problems has led architects and contractors to specify the patented RIM system for their projects. In addition, hundreds of property owners have retrofitted their roofs with the RIM system. Over 250,000 feet (52+ miles) of roof eaves and valleys throughout the United States and Canada are protected with Bylin's Roof Ice Melt System.



# PAVEMENT SNOWMELTING

The Bylin Automatic Pavement Snowmelt System uses embedded heating cables to automatically keep a surface free from snow and ice buildup.



## *Timeliness & Convenience*

- No shoveling
- No waiting for plow service
- Manual operation for drifting snow
- Always clear for schedules and emergencies



The Bylin snowmelt systems come with energy efficient control panels which optimize the performance and keep energy consumption to a minimum.



System Installation

## *Flexibility & Safety*

- Concrete, asphalt and paver applications
- New or retrofit design options
- Driveways, walkways, stairs, terraces and balconies



System Operating

## **Economics - Bylin vs. Hydronics**

**Example basis - present value operating costs  
(5 yr payback - 16% ROI)**

**Fuel Cost - electric - \$0.08/kwh  
- natural gas - \$1.20/therm**

**Building Space Value - \$200/ft<sup>2</sup>**

## **Comparative Costs**

	<b>Bylin</b>	<b>Hydronic</b>
<b>Installed Cost</b>	<b>\$28,000</b>	<b>\$48,000</b>
<b>Operating Cost</b>	<b>\$10,600</b>	<b>\$16,900</b>
<b>TOTAL</b>	<b>\$38,600</b>	<b>\$64,900</b>

For more information on cost comparison of Bylin vs. Hydronics, please visit our website at [www.bylinusa.com](http://www.bylinusa.com).

# RADIANT FLOOR HEATING

WarmGlo radiant floor heating takes the cold feel away from tiled surfaces and provides a safe, economical and reliable hidden radiant heating system. Embedded in the mortar or thinset under the flooring, WarmGlo provides uniform radiant heat for warmth and floor comfort.

WarmGlo radiant floor heating is custom engineered for bathrooms, kitchens, and entry areas.



## *Design & Installation*

WarmGlo heating cable's rugged construction allows for easy installation and long term performance.

Each heating cable set is custom designed for a specific floor area and readily adapts to complex floor configurations. For example, a single heating cable conveniently routes under the vanity cabinet to create warm floors throughout the bathroom.

Bylin's energy efficient controller uses solid state technology to monitor and control the floor temperature for maximum foot-warming comfort.

## *Comfort*

WarmGlo is specifically engineered to take the "cold feel" off marble, slate and tile floors.

WarmGlo is ideal for:

- Master bathrooms
- Guest bathrooms
- Kitchens
- Entry areas



**The WarmGlo controller can be programmed for special times each day of the week to fit your daily schedule.**

**For example, it can be set to turn on 1 hour before you get up and turn off when you leave the bathroom in the morning. In the evening, the system can be set to turn on 1 hour before you retire for the evening and turn off when you're finished with the bathroom.**

**This on/off programmed operation keeps energy usage to a minimum while providing the luxurious WarmGlo heat to your bare feet.**



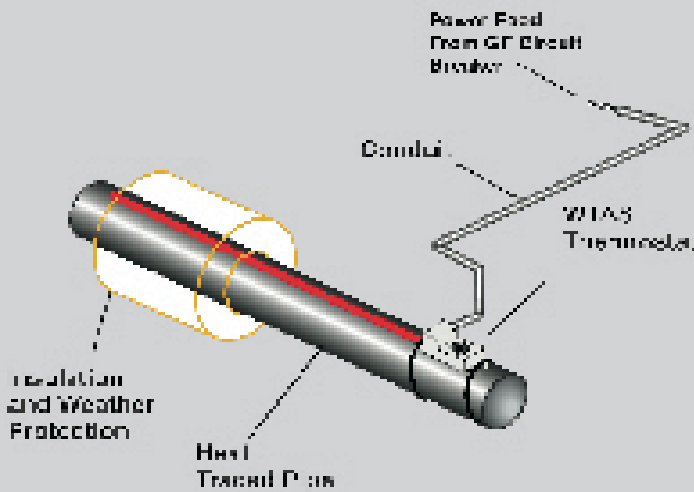
# PIPE HEAT TRACING

Bylin's Pipe Heat Tracing Systems provide a reliable method to:

- Prevent water lines from freezing and bursting
- Maintain pipe temperatures so non-water based liquids can continue to flow through the pipes.

The design of a pipe heat tracing system always includes insulation, weather protection, temperature control and the use of ground-fault circuit protection.

## Electric Heat Tracing System



Bylin's pipe heating cables are parallel circuit and self-regulating. This eliminates excessive temperatures and burnouts and allows for simple cut-to-length installation in the field.

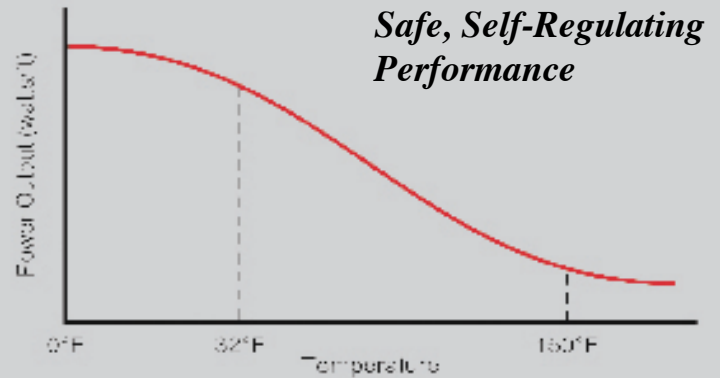


### Reliability

Bylin's heating cables have been manufactured to the highest quality specifications available in the industry.

No other available heating cable exceeds our performance and reliability.

Our heating cables are UL approved, FM Approved and CSA Certified for safety and performance.



### Benefits

- Complete engineering/design service
- Toll-free technical support
- Reliable, self-regulating heating cable
- Application specific Control Systems
- Industrial quality cable and components
- Maintenance-free operation
- Designed for wet and dry applications

### Applications

#### Freeze Protection

- Water lines
- Fire water protection/sprinkler lines
- Drain lines
- Cooling tower lines

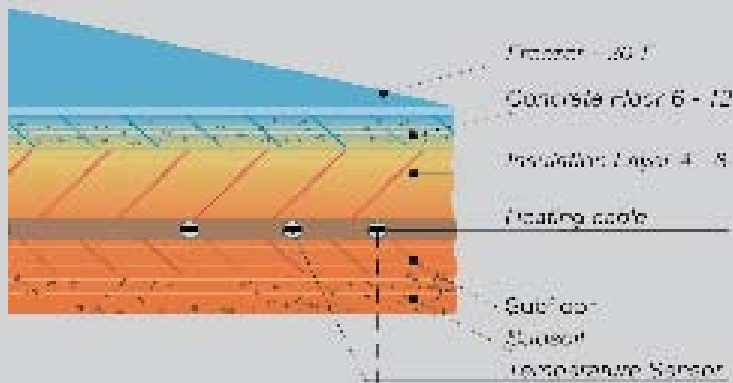
#### Temperature Maintain

- Grease/animal fat lines
- Diesel/fuel oil lines
- Water treatment chemical lines

# FROST HEAVE PREVENTION

Bylin's Frost Heave Prevention System utilizes reliable heating cable sets coupled with high efficiency control systems to prevent cold storage floor frost heave.

Bylin's engineered frost heave prevention heating system for cold storage optimizes the performance of the system by controlling the heater's output with a solid state control system. The temperature sensors provide continuous feedback for optimal performance. Unlike forced air and hydronic systems, Bylin's system remains constant and does not change with outside temperature changes.



## *Maintenance Free*

Bylin's energy-efficient control system automatically controls the sub-floor temperature using precise temperature sensors and solid state relay technology.

The heating cable sets are simple to install, and unlike other systems, have no mechanical equipment, valves, etc. that need continual monitoring and maintenance.

## *Energy Efficient*

Bylin's engineered system is the most energy efficient system available:

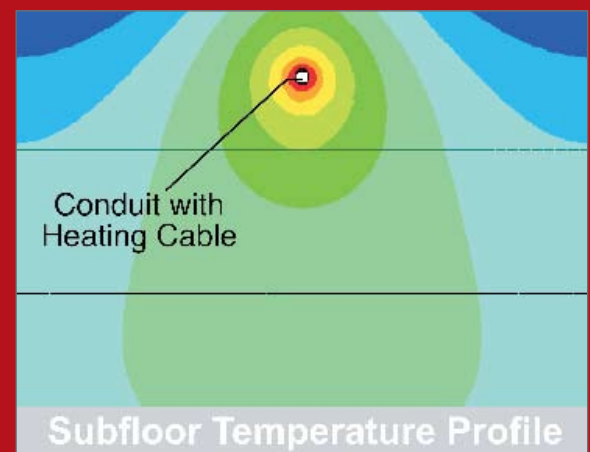
- Minimizes the heating cable power
- Minimizes the heat up into the cold storage floor
- Reduces the cold storage energy load to a minimum



**Control Panel**

Since 1980, Bylin's engineering staff has coupled heat transfer calculations and control system technology to create thousands of standard and custom heating cable system designs.

Our unique frost heave prevention system design is one example of our using over 25 years of project experience to customize and supply the most effective and efficient designs available.





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