

# NeverFreeze® De-icing Cable for Pipe Tracing

## PRODUCT DESCRIPTION

NeverFreeze® self-regulating heat cable is specially designed for pipe freeze protection and viscosity control to prevent damage to water lines. Unlike constant Wattage cables that produce the same amount of heat regardless of the outside temperature, NeverFreeze® self-regulating cables increase Wattage as needed, reducing energy consumption. NeverFreeze can be installed on both metallic and non-metallic pipes of all sizes. It is suitable for both indoors and outdoors.

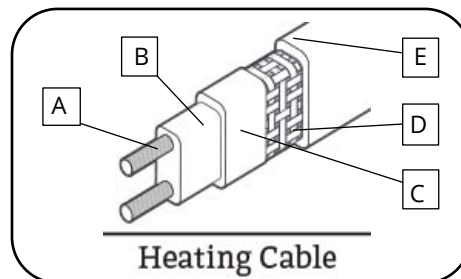
## FEATURES AND BENEFITS

- Designed for indoor and outdoor use.
- Custom lengths in 1-foot increments to custom fit your project.
- Can be installed with peace of mind directly on pipes and water lines.
- Safe for straight, wrap around, and overlap applications.
- Single cold lead wire for easy hookup – plug in?
- Self-regulating temperature lowers power output.
- Kits with pre-determined lengths, assembled for plug-and-play installation convenience.
- Custom lengths for maximum job-site customization.
- Complete spools for cutting-to-length and termination in the field for large jobs.
- Listed in compliance with UL Standards for the U.S. and Canada.
- Factory-direct prices, custom sizes, and professional support.

## APPLICATIONS

- Pipes (Metal and Plastic)
- Water Lines
- Storm Drainpipes

## CONSTRUCTION



### A. Dual Wires

Two copper wires facilitate electrical current.

### B. Polymer Conductor

The conductive center adjusts electrical resistance by temperature. Additional heat is conducted when temperature is low and less heat is conducted when temperature is high.

### C. Insulating Sheath

The insulating sheath protects the cable's inner mechanisms from damaging chemicals and moisture. It is made of fire-resistant thermoplastic rubber.

### D. Braided Copper Mesh

The woven copper mesh creates a conductive route.

### E. Outer Encasing

The cable's outer encasing provides resistance to water and outside elements, ensuring the longevity of your system.

## APPROVALS



### BREAKER SIZING AT MINIMUM START-UP AMBIENT TEMPERATURE

Maximum Allowable Circuit Lengths per Breaker Rating for 5W/Ft. Heat Cable			
	120V		
	15A	20A	30A
Start up at 0°F	90'	120'	175'
Start up at -20°F	75'	100'	150'
	240V		
	15A	20A	30A
Start up at 0°F	135'	185'	275'
Start up at -20°F	120'	160'	250'

### NEVERFREEZE HEATING CABLE IS AVAILABLE IN 120 AND 240 VOLTS IN THESE SIZES:

\*Cable varies from 2 feet to 500 feet long (in 120 and 240 volts).

#### Example

Cable Length: 50 ft.  
 Cable Voltage: 120 Volts  
 SKU: NFC-120-50

Find your cable's SKU according to voltage and length.

**Formula: "NFC"-Voltage-Length in feet**

Volts	Model	Length
120	NFC-120-2 - NFC-120-500	2' - 500'
240	NFC-240-2 - NFC-240-500	2' - 500'

### 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 warranted life.

The ThermoSoft® NeverFreeze® cable is warranted for 3 years against manufacturer's defects. See [www.ThermoSoft.com](http://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](mailto:Support@ThermoSoft.com)  
[www.ThermoSoft.com](http://www.ThermoSoft.com)

### SEE ALSO

- NeverFreeze® Snow Melting Cable
- NeverFreeze® Snow Melting Mats
- NeverFreeze® Roof and Gutter Cable

### HEATING CABLE SELECTION GUIDE

#### 1. Obtain and Record Application Data

See online warranty and installation forms, as well as record sheet included in manual.

#### 2. Calculate Heating Cable Length

Extra cable should be accounted for when considering valves, spigots, etc.

#### 3. Determine Circuits/Circuit Protection

Circuit protection depends on the breaker size being used and the start-up temperature. The Canadian Electrical Code, Part I in Canada and the National Electric Code (NEC 1999) in the USA require the use of ground fault protection breakers for heating cable.

### IMPORTANT NOTES ON CABLE SELECTION

- We assume a minimum ambient temperature of 0°F and a thermal insulation of thick fiberglass wrap or equivalent. For protection to -20°F minimum ambient use 1" thick fiberglass wrap or equivalent.
- Add 1 foot of heating cable for every valve or spigot in the pipeline - make sure to apply this extra cable at each valve/ spigot when installing.
- If your selected cable length is longer than your pipe length, spiral the cable evenly along the length of pipe.
- ThermoSoft® NeverFreeze® has 5W ft output at 50°F, 6W ft output at 40°F and 10W ft output at 32°F.
- For 2" pipes and each 2" in diameter, double the output.
- For plastic pipes, consider 25% more heat required.
- Definition of self-regulating: Self-regulating heating cables will reduce your power output and energy consumption to the lowest possible point as the ambient conditions get warmer. Systems using self-regulating heating elements may not completely turn off without the use of an outside control.
- For more information, call (800)308-8057 or visit [www.ThermoSoft.com](http://www.ThermoSoft.com).

### ACCESSORIES

ThermoSoft® has a complete line of accessories specifically designed for use with NeverFreeze® cable. Use only ThermoSoft® NeverFreeze® accessories to ensure the performance of the system.

Code	Description
NF-GPPCK	120V Plug-in, GFCI power connection kit
NF-PCK	NeverFreeze® Power Connection Kit
NF-ESK	End Seal Kit