

Suitable for any underfloor heating compatible floor finish, which can be easily replaced as desired for user flexibility.

#### No Change in Floor Build-Ups

The Inscreed Cable simply fixes to an insulation layer for laying a screed.



The Inscreed Systems variable cable spacings allow the heat input into a floor to be tailored to match its required heat load.

#### Steady Heat Output

The slower heat up and cool down time of the Inscreed System makes it particularly suited to the creation of a storage heating system.

# Overview

Warmup Inscreed Cable is an electric underfloor heating system designed for use within a screeded floor construction. The variable spacing of the cable available during design and installation allows the system power to be tailored to the properties requirements.

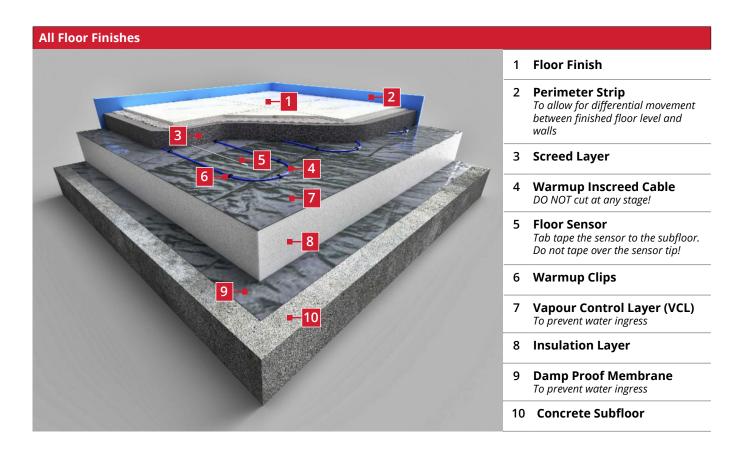
Screeded heating systems such as Warmup Inscreed have slower heat up and cool down times due to the screed depths used. The system will heat the screed but then release heat slowly into the room making it an ideal system for rooms which are in constant use.

The screed can be used as a form of storage heating, making use of its longer heat retention, for an efficient and cost effective solution.

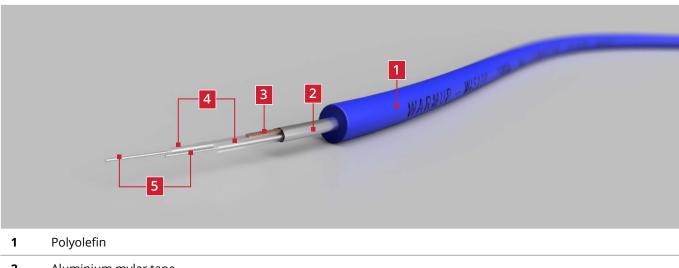
The Inscreed heating system is suitable for almost any flooring finish and in particular where the flooring may be replaced from time to time. This is because the system is safely embedded in screed therefore there is less risk of damaging the heating cable if the floor covering is changed giving the user more flexibility.



# Typical Floor Build-Up



## **Cable Section**



- 2 Aluminium mylar tape
- **3** Copper drain wire
- 4 Fluoropolymer
- **5** Dual core, single-strand heating element

# **Technical Specification**

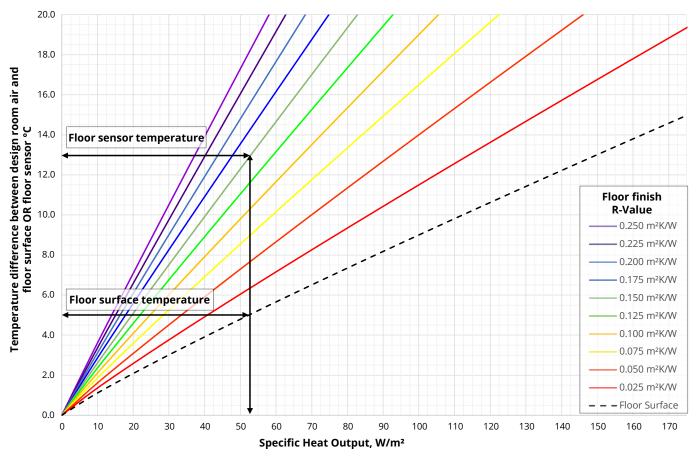
Warmup Inscreed cable										
Product Code	WISXXX XXX = Total wattage	Cable sheath	Blue							
Connection	1.5 mm², 2.50 m long coldtail	IP rating	X7							
Operating Voltage	230 V AC: 50 Hz	Inner / Outer Insulation	Fluoropolymer / Polyolefin							
Output rating	200 W/m² / 150 W/m² / 100 W/m²	Earth protection	Aluminium mylar tape with copper drain wire							
Heating cores	Dual core, single-strand heating element	Minimum installation temperature	-10 °C							
Cable Diameter	5.30 mm	Spacing	100 mm (200 W/m²) / 133 mm (150 W/m²) / 200 mm (100 W/m²)							

#### **Warmup Inscreed Cable**

								Heated Area, m²			
								100 W/m²	150 W/m <sup>2</sup>	200 W/m²	
Product code	Cable length (m)	Power (W)	Current (A)	Resistance (Ω)	Resistance Band (Ω)		200 mm	133 mm	100 mm		
WIS180	9.0	180	0.8	287.5	273.1	-	301.9	1.8	1.2	0.9	
WIS280	14.0	280	1.2	193.2	183.5	-	202.9	2.8	1.9	1.4	
WIS390	19.5	390	1.7	138.0	131.1	-	144.9	3.9	2.6	2.0	
WIS500	25.0	500	2.2	107.4	102.0	-	112.8	5.0	3.3	2.5	
WIS650	32.5	650	2.8	81.6	77.5	-	85.7	6.5	4.3	3.3	
WIS760	38.0	760	3.3	69.8	66.3	-	73.3	7.6	5.1	3.8	
WIS1000	50.0	1000	4.4	53.7	51.0	-	56.4	10.0	6.7	5.0	
WIS1200	60.0	1200	5.2	44.2	42.0	-	46.4	12.0	8.0	6.0	
WIS1460	73.0	1460	6.4	36.2	34.4	-	38.0	14.6	9.7	7.3	
WIS1550	77.5	1550	6.7	34.1	32.4	-	35.8	15.5	10.3	7.8	
WIS1770	88.5	1770	7.7	29.9	28.4	-	31.4	17.7	11.8	8.9	
WIS2070	103.5	2070	9.0	25.6	24.3	-	26.9	20.7	13.8	10.4	
WIS2600	130.0	2600	11.3	20.3	19.3	-	21.3	26.0	17.3	13.0	
WIS3140	157.0	3140	13.7	16.8	16.0		17.6	31.4	20.9	15.7	
WIS3370	168.5	3370	14.7	15.7	14.9		16.5	33.7	22.5	16.9	

## **System Performance**

#### Floor sensor setting for target heat output



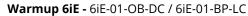
Using the graph above it is possible to get the specific heat output of an eUFH system based on the temperature difference between the design room air temperature and the floor surface or floor sensor temperature by floor finish.

The example above shows that for a design room air temperature of 20°C and floor surface temperature of 25°C. Based on the temperature difference of 5°C the resulting heat output would be  $52.5 \text{ W/m}^2$ . Based on a  $0.150 \text{ m}^2\text{K/W}$  (1.5 Tog) floor finish the floor sensor would have to be set to 33°C to achieve this heat output.

- The design floor surface temperature difference should not be more than 9 °C in occupied areas, 15 °C in unoccupied areas.
- ightharpoonup Heat output is limited by the floor finish resistance combined with the maximum probe setting of 40 °C.
- Temperature limits of the floor finish or its adhesive may adversely limit the design heat output.

## Components





The world's first UFH thermostat with a smartphone touchscreen providing effortless control at your fingertips. Connected to the internet by WiFi, it can be controlled from a smart phone, tablet or computer as well as its own touchscreen interface. Working automatically; it learns your routines and location through background communication with your smartphone. Using this knowledge it suggests ways to save energy.



**Warmup Element -** RSW-01-WH-RG (ELM-01-WH-RG) / RSW-01-OB-DC (ELM-01-OB-DC) Warmup's Element WiFi Thermostat has been designed with simplicity and stylish functionality in mind. It brings energy-efficient heating control to all Warmup floor heaters. Combining smart technology with simple, contemporary design, the Element WiFi Thermostat is the perfect all-rounder to control Warmup heating systems.



#### Warmup perimeter strip - WHS-X-EDGE50

High quality foam perimeter strip, to allow for differential movement between finished floor level and walls when layer the screed over the Inscreed system.



#### Warmup Clips - CLIP-26

The clips are used to securely hold the heating cable in place on the insulation layer below. This ensures minimal movement and maintains the intended cable spacing once the screed layer is applied on top of the system.

#### Clip gun - CLIP26-GUN

Used to install the CLIP26 clips into insulation layer for a faster installation.

### Contact

#### Warmup plc

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