

# Foil Heater System

## Overview

The Warmup Foil Heater is an electric underfloor heating system for laminate, engineered wood and other floating floor finishes. The Foil heater is fitted between the insulating layer and the floating floor deck, adding negligible height to the installation.

Glued parquet flooring, carpets, vinyls and other resilient floor finishes can be laid over the Warmup Foil Heater by using our Dual Overlay system to create a thin floating floor deck.

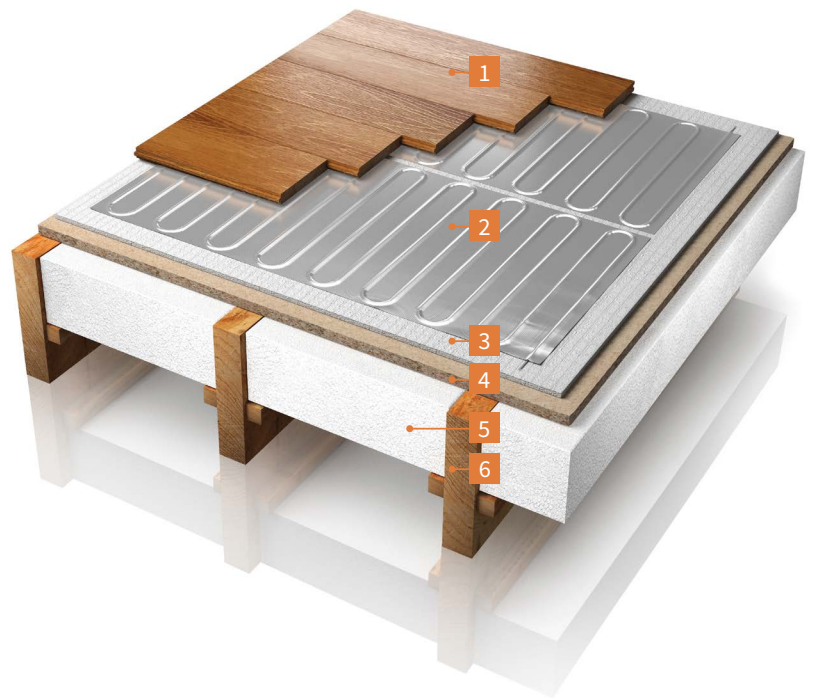
If homeowners wish to refurbish their rooms in the future, the floating floor finish installed over the foil heater can be easily lifted and replaced with a new finish if desired.

The Foil heater is made up of a fibre reinforced foil wrapped around a thin multi strand, dual core heating cable that is insulated with an advanced fluoropolymer. The foil provides a continuous earth layer within the floor construction whilst diffusing the heat away from the heating cable.

### FLOOR CONSTRUCTION

- 1 Floor finish
- 2 Warmup Foil Heater
- 3 Warmup Insulated Underlay
- 4 Floor Deck
- 5 Insulation
- 6 Joists

**NOTE:** MUST be used with Warmup Insulated Underlay  
MUST be used with Warmup Dual Overlay when laying vinyl or carpet  
ALWAYS check compatibility of flooring with electric underfloor heating



Electric  
Heating System

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# Technical Data

## TECHNICAL DATA - Foil Heater

OPERATING VOLTAGE	220 - 240v: 50Hz
IP RATING	IPX7
WIDTH	500mm
MAT THICKNESS	3mm
CABLE THICKNESS	1.8mm
OUTPUT RATING	140W/m <sup>2</sup>
INSULATION	ETFE
MIN. INSTALLATION TEMP	5°C
CONNECTION	3m LONG "COLDTAIL" CONNECTION



## Features

- Foil layer acts a continuous earth layer within the floor construction whilst also diffusing the heat evenly
- Installed directly under the floor finish; no self levelling required
- Ideal for regular shaped rooms, where the 0.5m wide mats can be rolled out across the floor in parallel runs.
- Ideal for heating under laminate, engineered wood and other floating floor finishes
- BEAB Approved and CE marked meeting the highest safety standards for ultimate piece of mind
- 15 Year Warranty & SafetyNet Installation Guarantee



# Technical Data

PRODUCT CODE	Foil Heater (WLFH-140W)				
	AREA TO BE HEATED (m <sup>2</sup> )	POWER (W)	LOAD (A)	RESISTANCE (Ω)	RESISTANCE BANDS (Ω)
WLFH-140W/140	1	140	0.61	377.86	359.0 - 396.8
WLFH-140W/210	1.5	210	0.91	251.90	240.2 - 263.7
WLFH-140W/280	2	280	1.22	188.93	179.5 - 198.4
WLFH-140W/420	3	420	1.83	125.95	119.7 - 132.3
WLFH-140W/560	4	560	2.43	94.46	89.8 - 99.2
WLFH-140W/700	5	700	3.04	75.57	71.8 - 78.4
WLFH-140W/840	6	840	3.65	62.98	59.9 - 66.2
WLFH-140W/980	7	980	4.26	53.98	51.3 - 56.7
WLFH-140W/1120	8	1120	4.87	47.23	44.8 - 49.6
WLFH-140W/1260	9	1260	5.48	41.98	39.9 - 44.1
WLFH-140W/1400	10	1400	6.09	37.79	35.9 - 39.7
WLFH-140W/1680	12	1680	7.30	31.49	29.9 - 33.1

**NOTE:** To cover larger areas, several kits should be used together.

## WARMUP COMPONENTS

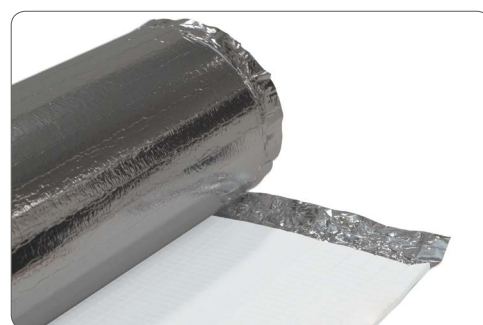
### Insulated Underlay

Warmup® Insulated Underlay is a thin polystyrene insulation barrier with effective acoustic properties to reduce contact noise.

The insulated underlay sits between the subfloor and the Foil heater, reflecting the heat upwards making the system even more efficient.

#### INSULATED UNDERLAY - TECHNICAL SPECIFICATIONS

SIZE	WIDTH - 1200mm COVERAGE/PACK - 2.5sqm, 5.0sqm, 10sqm, 25sqm
THICKNESS	6mm +/- 0.5
COMPOSITION	TOP LAYER: GROOVED POLYSTYRENE BOTTOM LAYER: SILVER FOIL WITH ADHESIVE OVERLAP
Rm VALUE	0.19m <sup>2</sup> K/W
CONTACT SOUND REDUCTION*	25dB ΔLw WHEN USED IN CONJUNCTION WITH WARMUP® DUAL OVERLAY
TEMPERATURE REACH	-30 °C up to +70°C
THERMAL CONDUCTIVITY (W/m.K)	0.036
DENSITY (kg/m <sup>3</sup> )	18
FIRE CLASS EN13501	E <sub>fl</sub>
WATER VAPOUR DIFFUSION RESISTANCE (SD)	> 100



# Dual Overlay

Warmup® Dual Overlay is a free-floating subfloor offering a smooth and seamless finish for carpet, vinyl and linoleum. The two layers protect the heating wire from sharp and heavy point loads and provides even heat distribution. Installation is dry, clean and quick. Both the Insulated Underlay and Dual Overlay are designed to work together with Warmup Foil Heaters.

## DUAL OVERLAY - TECHNICAL SPECIFICATIONS

CONTENTS	4 BASE AND 4 TOP BOARDS (COVERS 2.88 <sup>2</sup> )
SIZE	1200mm x 600mm
THICKNESS	TOP BOARD: 4mm BASE BOARD: 3mm TOTAL THICKNESS: 7mm TOLERANCE: +/- 0.2mm/7mm
COMPOSITION	MDF, FITTED WITH AN INTERACTIVE ADHESIVE
DENSITY (kg/m <sup>3</sup> )	770
BENDING STRENGTH kg/cm <sup>2</sup>	>40
HUMIDITY (%)	4-10
THERMAL Rm VALUE [m <sup>2</sup> .K.W. <sup>-1</sup> ]	0.047
FIRE CLASS, DIN4102	B2



# Thermostat



## 4iE® SMART WIFI THERMOSTAT

For Central Heating and Underfloor Heating Systems

Connected to the internet by WiFi, it can be controlled from a smart phone, tablet or computer as well as its own touchscreen interface. It learns how homeowners use their heating and the unique way each zone reacts. It uses this knowledge to suggest ways to save energy, such as what temperature should be set when the area is not in use and when the heating can be turned off earlier with no noticeable impact on comfort.

Personalise your 4iE with uploadable photo backgrounds and changeable, textured overlays.



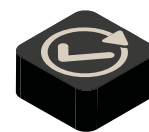
### SmartGeo™

Always at the right temperature automatically, and up to 25% lower energy usage. Just like magic.



### EasySwitch™

Always on the best tariff, automatically. Saving on average £210.



### Easy to use

Simple and secure set up using WiFi, with 24/7 technical support.

# 4iE™ Smart WiFi Thermostat

## Overview

The 4iE is designed to look great in contemporary and traditionally styled homes. Connected to the internet by WiFi, it can be controlled from a smartphone, tablet or computer as well as its own touchscreen interface. It learns how homeowners use their heating and the unique way each zone reacts.

It uses this knowledge to suggest ways to save energy, such as what temperature should be set when the area is not in

use and when the heating can be turned off earlier with no noticeable impact comfort.

The 4iE offers many features and benefits that make it stand out from other smart thermostats, offering important advantages to the homeowner and trade professional.



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# Features

- 4iE can be programmed via your smartpone, tablet or computer using the MyWarmup app
- The 4iE can be set to learn your schedule and program the heating itself
- Offers energy saving advice and could save you on average £210 on UK energy bill by finding you better energy deals
- WarmApps such as traffic alerts and transport delays available on the 4iE
- BEAB Approved and CE marked meeting the highest safety standards for ultimate piece of mind
- 3yr Warranty with option to upgrade to Lifetime Warranty



# Technical Specifications

4iE - TECHNICAL SPECIFICATIONS	
INPUT VOLTAGE	230V +/- 15% at 50Hz
MAX LOAD	16A (3680W)
DIMENSIONS	(H/W/D): 90 x 120 x 18mm (from wall)
SENSORS	AIR & FLOOR (AMBIENT)
SENSOR TYPE	NTC10K 3m LONG (CAN BE EXTENDED TO 50m)
IP RATING	IP33
INSTALLATION DEPTH	35mm BACK BOX
DISPLAY SIZE	3.5" FULL COLOUR TOUCHSCREEN
COMPATIBILITY	IDEAL FOR ELECTRIC & HYDRONIC UNDERFLOOR HEATING UP TO 16A. COMBI & SYSTEM BOILERS WITH SWITCH LIVE (230VAC) INPUT
Er-P CLASS	IV



# 3iE™ Energy-Monitor Thermostat



## Overview

The world's first fully interactive, touch technology, energy-monitor thermostat features an easy-to-use interface, eliminating complicated instruction manuals. The display shows recorded energy consumption usage, so

that users know the exact underfloor heating costs. Up to 10 programmable periods can be set each day to maximise energy efficiency.

### Innovative

First thermostat with a 2.4" full colour screen and integrated touch technology – patents pending.

Beautifully crafted fashion colour fascia with chrome edging are perfectly in tune with the modern home environment.

### Interactive

Clear graphical display makes any adjustment quick and easy.

Choose the display style that suits you best – wide choice of screen themes.

### Intelligent

Proportional Adaptive Function ensures the room does not over-heat, reducing wasted energy whilst also protecting the components inside. The Early Start algorithm learns how long it takes to warm the room and activates the heating so it's up to temperature at the right time.

### Installation

The 3iE™ Energy-Monitor Thermostat should be installed by a certified electrician only, using Warmup's installation instructions.

### Energy Efficient

Unrivalled accurate floor temperature control means no wasted energy - reducing the costs associated with over-heating.

Graphical energy monitor shows exactly how much energy is being used and when.

AEM™ prompts you to choose the best and most efficient temperature for each room, maximising energy efficiency.

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# Features

- Active Energy Management™ prompts user to save up to 10% on utility bills
- Easy-to-use interface eliminates complicated manuals
- Unrivalled accurate floor temperature control of +/- 0.5°C, significantly reduces energy wastage
- 10 programmable periods per day for efficient energy usage
- Stylish range of colours to suit any decor
- BEAB Approved and CE marked meeting the highest safety standards for ultimate piece of mind
- 3yr Warranty with option to upgrade to Lifetime Warranty



# Technical Specifications

3iE - TECHNICAL SPECIFICATIONS	
INPUT VOLTAGE	230V +/- 15% at 50Hz
MAX LOAD	16A (3680W)
DIMENSIONS	(H/W/D): 90 x 113 x 19mm (from wall)
SENSORS	AIR & FLOOR (AMBIENT)
SENSOR TYPE	NTC10K 3m LONG (CAN BE EXTENDED TO 50m)
IP RATING	IP20/(IP 32 WITH OPTIONAL GASKET)
INSTALLATION DEPTH	35mm BACK BOX
DISPLAY SIZE	2.4" FULL COLOUR
COMPATIBILITY	IDEAL FOR ELECTRIC & HYDRONIC UNDERFLOOR HEATING
Er-P CLASS	IV





# Tempo™ Digital Thermostat



## Overview

The Tempo thermostat enables end users to choose the time as easily as they would with a watch or clock and quickly set their programs – heat on when they want it and off when they do not need it.

Suitable with all Warmup underfloor heating systems, the tempo thermostat allows you to control the temperature of your underfloor heating to give you comfort, warmth and luxury to match your specific needs.

### Better

Easy-to-use interface and intuitive design.

With Tempo, end users can simply program their settings to suit individual requirements, warmer when they are at home, lower when they are away or asleep.

### Faster

Set-up takes just minutes to get right the first time. It will help avoid wasting energy and achieve savings on utility bills.

### Smarter

Its Proportional Adaptive Function ensures the room does not over-heat, reducing wasted energy whilst also protecting the components inside.

The Early Start algorithm learns how long it takes to warm the room and activates the heating so it's up to temperature at the right time.

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# Features

- Stylish and contemporary design
- Clear screen displaying program details
- Proportional Adaptive Learning
- Easy control with dial and sliders
- Available in Porcelain White and Piano Black
- BEAB Approved and CE marked meeting the highest safety standards for ultimate piece of mind
- 3yr Warranty with option to upgrade to Lifetime Warranty



# Technical Specifications

TEMPO - TECHNICAL SPECIFICATIONS	
INPUT VOLTAGE	230V +/- 15% at 50Hz
MAX LOAD	16A (3680W)
DIMENSIONS	(H/W/D): 90 x 113 x 23mm (from wall)
BATTERY BACKUP	3 MONTHS (CR2032 BATTERY PROVIDED)
SENSORS	AIR & FLOOR
SENSOR TYPE	NTC10K 3m LONG (CAN BE EXTENDED TO 50m)
IP RATING	IP20
INSTALLATION DEPTH	35mm BACK BOX
DISPLAY SIZE	45 X 50mm
COMPATIBILITY	IDEAL FOR ELECTRIC & HYDRONIC UNDERFLOOR HEATING
Er-P CLASS	IV

