Cement Coated Insulation Boards

Overview

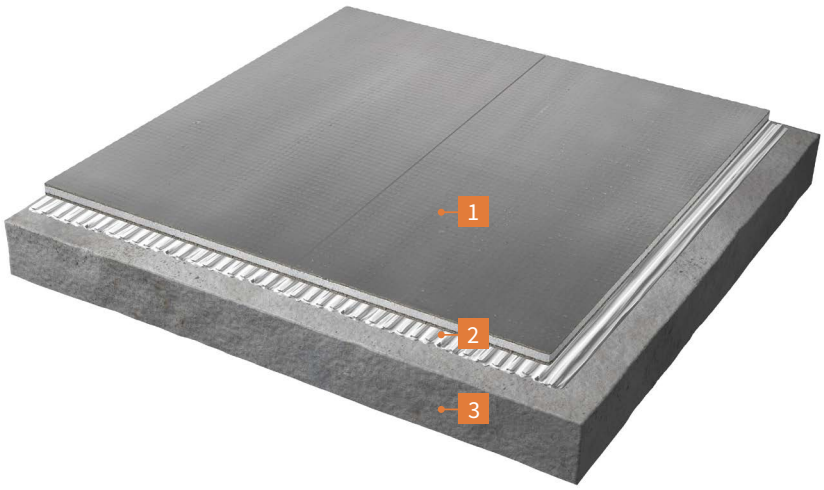
Warmup Insulation Boards are manufactured from water resistant extruded polystyrene, finished on both faces with a thin layer of fibreglass reinforced cement. They are available in a range of thicknesses, from 6mm to 50mm, to individual project requirements.

They are ideal for tile backing applications on both walls and floors, with the internal layer of insulation capable of supporting 30 tonnes per square metre. The 0.5mm thick cement coating provides an excellent surface for tile adhesive, plaster and smoothing/levelling compounds, with no priming required.

The low thermal conductivity of the insulation enhances the efficiency of underfloor heating systems, even when used over pre insulated sub floors. This is because they reduce the thermal mass of the floor, significantly reducing the amount of heat absorbed by the subfloor. This allows the underfloor heating system to warm the floor and the room up faster and ensures the floor cools down faster after use. By reducing the amount of time the room takes to warm up and cool down, the room can spend longer at its cooler set back temperature, reducing its heat loss.

The waterproof insulation panels are suitable for bathrooms and showers as well as dry rooms, allowing the same construction to be used throughout

FLOOR CONSTRUCTION
1 Warmup Coated Insulation Board
2 Flexible Tile Adhesive
3 Subfloor



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Electric
Heating System

Warmup®
The world's **best-selling** floor heating brand™

Technical Data

TECHNICAL DATA - Insulation Boards						
PRODUCT CODE	**INSBOARD6**	**INSBOARD(PK1)**	**INSBOARD20**	**INSBOARD30**	**INSBOARD40**	**INSBOARD50**
THICKNESS - mm	**6 mm**	**10 mm**	**20 mm**	**30 mm**	**40 mm**	**50 mm**
WIDTH - mm	600					
LENGTH - mm	1250					
AREA - m^2	0.75					
WEIGHT - kg (kg/m^2)	2.2 (2.9)	2.3 (3.1)	2.5 (3.4)	2.8 (3.7)	3.0 (4.0)	3.2 (4.3)
THERMAL CONDUCTIVITY - W/mK	0.033					
THERMAL RESISTANCE - m^2K/W	0.12	0.24	0.55	0.85	1.15	1.45
COMPRESSIVE STRENGTH - kPa	300					
BOND STRENGTH - kPa	220					
SHEAR BOND STRENGTH - kPa	325					
MAXIMUM TILE WEIGHT (for Walls) - kg/m^2	60					
THERMAL EXPANSION COEFFICIENT (FOAM CORE ONLY) - mm/m per °C	≤0.07					
WATER ABSORPTION (2 DAY IMMERSION)(FOAM CORE ONLY) - % by volume	≤1.5					
FIRE RATING - Euroclass	E					
OZONE DEPLETION POTENTIAL - ODP	0					
GLOBAL WARMING POTENTIAL - GWP	<5					

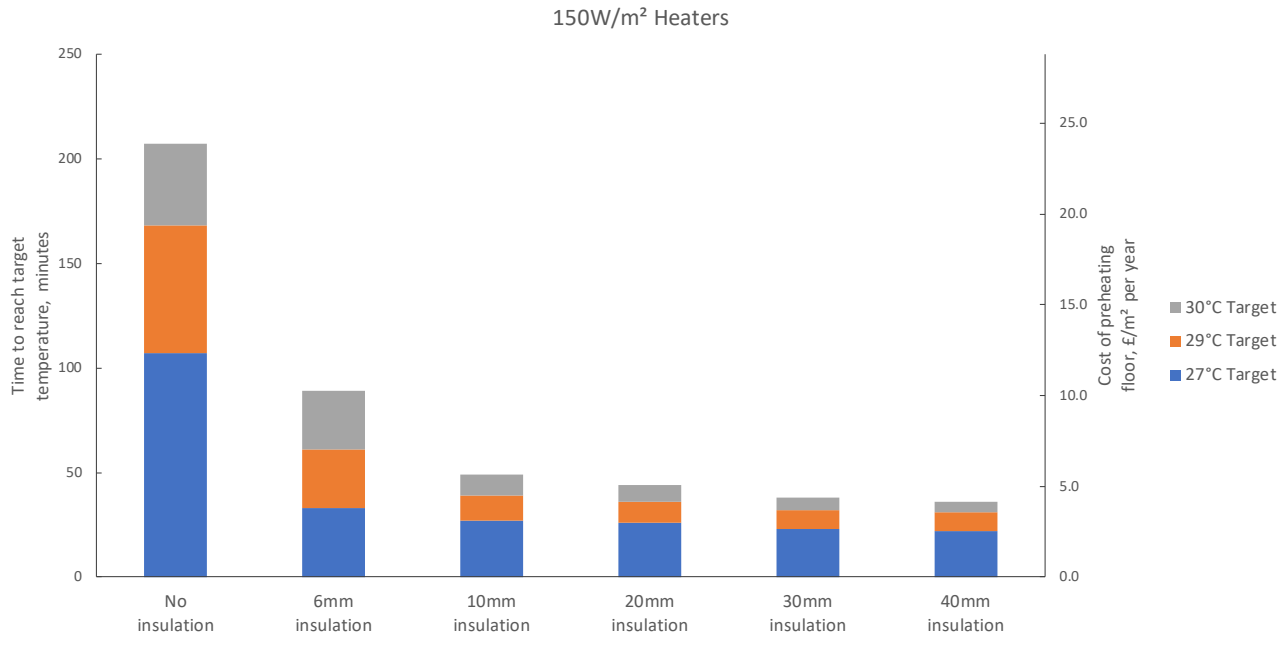
Features

- Easy to cut and shape around fixtures with a knife or saw
- Comes in a range of thicknesses to suit floor and wall applications
- Can be fixed to solid or stud walls
- Excellent as internal wall insulation especially when compared to standard cement building boards and plaster boards
- Reduces heat loss and improves the underfloor heating systems response time
- CE marked for ultimate peace of mind
- Can be used to easily create a waterproof floors and walls in wet rooms, just by adding silicone sealant to the edges of the board before butting them tightly together
- High resistance to rot due to very low absorption rate

INSULATION BOARD EFFECT ON PREHEATING TIMES

Warmup has conducted extensive testing of its electric underfloor heating systems when used in combination with its range of Cement Coated Insulation Boards. The tests consisted of a 75mm screed subfloor, heated with a 150W/m2 under tile heating system. The range of Warmup Cement Coated Insulation Boards were each installed between the sub floor and the heated tiles with a reference construction that had none.

The chart below shows the response times and the resulting costs of preheating the floors from 18°C to three different temperature settings. Even just a 6mm board makes a significant improvement to system performance and provides savings that will quickly recover their initial purchase price.



*Cost assumptions: 12.66p/kWh - system on twice a day, for 6 months (182 days) of the year.

StickyMat System

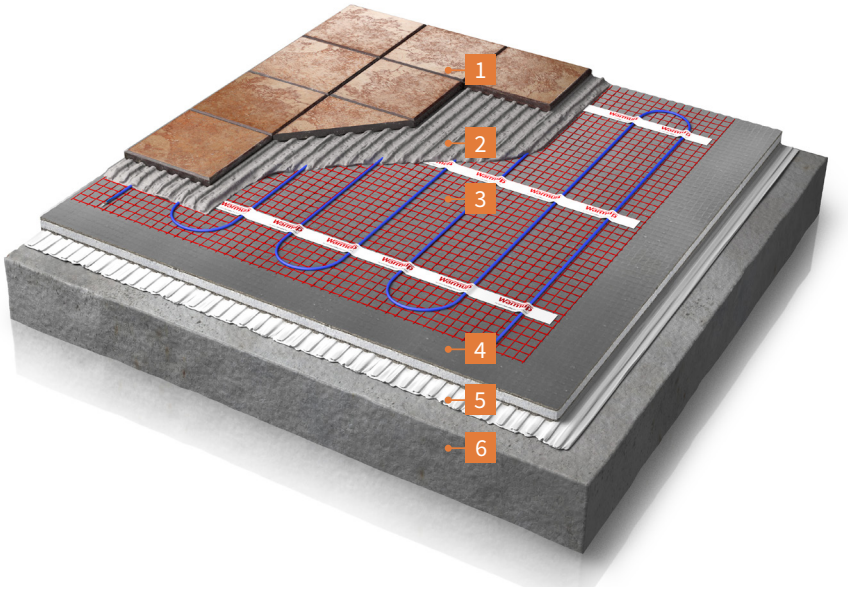
Overview

The Warmup StickyMat System is designed for use within the adhesive layer under tiles or within a levelling compound under other floor finishes. The fixed spacing and self-adhesive mat makes installation of regularly shaped rooms quick and easy whilst ensuring precision is maintained. The pressure sensitive adhesive securely binds the mats to the floor, keeping them flat and ensuring the application of tile adhesive is snag free whilst allowing the mats to be easily repositioned as needed.

The ultra-thin, 2mm multistrand, dual core heating cable, is double insulated with an advanced fluoropolymer making it exceptionally tough and easy to tile over.

For floors using a vinyl, carpet, timber or other UFH compatible floor finishes including tiles the system can be covered with a levelling compound to provide a flat and level floor surface. StickyMats are available in both 150W/m^2 and 200W/m^2 variants making them ideal for use as the primary heat source within modern homes and most older properties.

FLOOR CONSTRUCTION
1 Floor finish
2 Tile adhesive or levelling compound
3 Warmup StickyMat
4 Warmup Coated Insulation Board
5 Flexible Tile Adhesive
6 Subfloor



Electric
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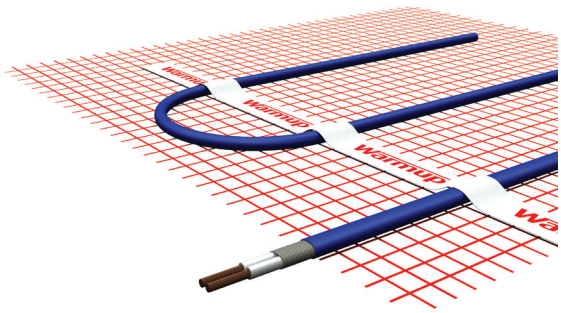
Technical Data

TECHNICAL DATA - StickyMat	
OPERATING VOLTAGE	220 - 240v: 50Hz
IP RATING	IPX7
WIDTH	500mm
MAT THICKNESS	3mm
CABLE THICKNESS	1.8mm
OUTPUT RATING	150W/m^2 200W/m^2
INNER INSULATION	ETFE
OUTER INSULATION	ETFE
MIN. INSTALLATION TEMP	5°C
CONNECTION	3m LONG “COLDTAIL” CONNECTION



Features

- StickyMats are available in both 150W/m^2 and 200W/m^2 variants
- Ultra-thin, 1.8mm cable multistrand, dual core heating cable is double insulated with an advanced fluoropolymer making it exceptionally tough and easy to tile over
- Ideal for regular shaped rooms, where the 0.5m wide mats can be rolled out across the floor in parallel runs.
- Pressure sensitive adhesive securely binds the mats to the floor keeping them flat for fast and secure installation
- BEAB Approved and CE marked meeting the highest safety standards for ultimate piece of mind
- Lifetime Warranty & SafetyNet Installation Guarantee

Technical Data

PRODUCT CODE	AREA TO BE HEATED (m^2)	SPM 150W/m^2			
		POWER (W)	LOAD (A)	RESISTANCE (Ω)	RESISTANCE BANDS (Ω)
SPM 1	1	150	0.65	353	335.4 - 370.7
SPM 1.5	1.5	225	0.98	235	223.3 - 246.8
SPM 2	2	300	1.30	176	167.2 - 184.8
SPM2.5	2.5	375	1.63	141	134.0 - 148.1
SPM 3	3	450	1.96	118	112.1 - 123.9
SPM 3.5	3.5	525	2.28	101	96.0 - 106.1
SPM 4	4	600	2.61	88	83.6 - 92.4
SPM 4.5	4.5	675	2.93	78	74.1 - 81.9
SPM 5	5	750	3.26	71	67.5 - 74.6
SPM 6	6	900	3.91	59	56.1 - 62.0
SPM 7	7	1050	4.57	50	47.5 - 52.5
SPM 8	8	1200	5.22	44	41.8 - 46.2
SPM 9	9	1350	5.87	39	37.1 - 41.0
SPM 10	10	1500	6.52	35	33.3 - 36.8
SPM 11	11	1650	7.17	32	30.4 - 33.6
SPM 12	12	1800	7.83	29	27.6 - 30.5
SPM 15	15	2250	9.78	24	22.8 - 25.2

PRODUCT CODE	AREA TO BE HEATED (m^2)	2SPM 200W/m^2			
		POWER (W)	LOAD (A)	RESISTANCE (Ω)	RESISTANCE BANDS (Ω)
2SPM 0.5	0.5	100	0.44	529	502.6 - 555.5
2SPM 1	1	200	0.87	265	251.8 - 278.3
2SPM 1.5	1.5	300	1.30	176	167.2 - 184.8
2SPM 2	2	400	1.74	132	125.4 - 138.6
2SPM 2.5	2.5	500	2.17	106	100.7 - 111.3
2SPM 3	3	600	2.61	88	83.6 - 92.4
2SPM 3.5	3.5	700	3.04	76	72.2 - 79.8
2SPM 4	4	800	3.48	66	62.7 - 69.3
2SPM 4.5	4.5	900	3.91	59	56.1 - 62.0
2SPM 5	5	1000	4.35	53	50.4 - 55.7
2SPM 6	6	1200	5.22	44	41.8 - 46.2
2SPM 7	7	1400	6.09	38	36.1 - 39.9
2SPM 8	8	1600	6.96	33	31.4 - 34.7
2SPM 9	9	1800	7.83	29	27.6 - 30.5
2SPM 10	10	2000	8.70	26	24.7 - 27.3
2SPM 15	15	3000	13.04	18	16.7 - 18.5

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

WARMUP COMPONENTS

Insulation Boards

Warmup® Insulation Boards are a water resistant, insulated tile backer board made of extruded polystyrene, faced on both sides with a fibreglass mesh embedded into a thin cement polymer mortar.

They have high thermal insulation properties for energy efficiency and an added benefit of sound absorption.

INSBOARD - TECHNICAL SPECIFICATIONS					
MODEL	THICKNESS (mm)	WIDTH (mm)	LENGTH (mm)	WEIGHT (kg)	R VALUE (m^2.K/W)
INSBOARD6MM	6	600	1250	1.95	0.16
INSBOARD(PK1)	10	600	1250	2.22	0.28
INSBOARD20MM	20	600	1250	2.48	0.58
INSBOARD50MM	50	600	1250	3.26	1.50

Warmup Insulation Boards have zero Ozone Depletion Potential (ODP) and a Global Warming Potential (GWP) of less than 5

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.

6iE™ WiFi Thermostat

The smartest, most efficient way to control the world's best selling floor heating

Reduces energy use by up to 25%*
Reduce energy use by up to 25% with the energy efficient **MyHeating app** technology

Automatic control of your heating
Unique **SmartGeo™** automatically turns down the heating when you're out

Reduce energy bills by over £210**
Using less energy and switching to a cheaper tariff with Warmup **AutoSwitch™**

Data security you can trust
Developed and operated by Warmup plc in London, with data encryption and high security

Overview

The 6iE from Warmup is the world's first UFH thermostat with a smartphone touchscreen providing effortless control at your fingertips. Available in Onyx Black and Bright Porcelain with an ultra-thin (16 mm from the wall) design, it will look great in classic contemporary or simple modern homes. Personalise the 6iE with photo backgrounds, the only underfloor heating thermostat with this ability.

Set up is done in a matter of seconds, simply scan the QR code which will appear on the 6iE using the MyHeating app and it will automatically connect to your WiFi network.

The 6iE works with all of our advanced energy saving features in the MyHeating app such as SmartGeo. SmartGeo is a unique technology developed by Warmup and built into the MyHeating App that uses an advanced algorithm to understand the most efficient heat settings for your home.

Working automatically; it learns your routines and location through background communication with your smartphone and lowers temperatures when you are away, only rising them up to your ideal comfort temperature in time for your arrival home saving you money and energy.

Features & Benefits

- Premium ultra-thin design (16 mm from the wall) with the world's first smartphone touchscreen providing **effortless control** at your fingertips.
- **Personalise** the 6iE with photo backgrounds, the only underfloor heating thermostat with this ability.
- **Easy to setup.** Simply scan the QR code which will appear on the 6iE using the MyHeating app and it will automatically connect to your WiFi network.
- Automatic control of your heating. SmartGeo learns your routines and location through background communication with your smartphone and lowers temperatures when you are away, only rising them up to your ideal comfort temperature in time for your arrival home **saving you money and energy**.
- Reduce energy use **by up to 25%** with energy efficient MyHeating app technology.
- **Reduce energy bills by over £210 per year** using less energy and switching to a cheaper tariff with Warmup AutoSwitch. Save money by switching to renewable energy suppliers easily.
- Weather based Early Start. Turns the heating on at just the right time to be warm when you scheduled - **no overheating or wasted energy**. Takes into account the weather forecast for warmth just when you wanted, even on cold days and no wasted energy overheating on warm days.
- Energy Monitoring; **Energy + cost graphs** on mobile, tablet and desktop.
- **12 Year warranty** when installed with a Warmup heater.

6iE Models

Model	Housing Colour	Band
6IE-01-OB-DC	Onyx Black	Dark Chrome
6IE-01-BP-LC	Bright Porcelain	Light Chrome

Pack Contents

1 x 6iE (Display & Power Base) with installation manual
1 x 3m NTC10K Sensor
2 x M3.5 x 25 x 0.6P screws
1 x Screwdriver

Technical Specifications

Model	6iE-01-XX-YY	**Dimensions (Assembled 6iE)**	90 x 115 x 39 mm
Operating voltage	230 V AC : 50 Hz	**Screen size**	3.5in
Protection class	Class II ⧈	**Sensors**	Air & Floor (Ambient)
Maximum load	16A (3680W)	**Sensor Type**	NTC10k 3m Long (Can Be Extended To 50m)
Rated impulse voltage	4000V	**Operating Frequency**	2401 - 2484MHz
Automatic action	100,000 cycles	**Max. Radio-Frequency Power Transmitted**	20dBm
Disconnection means	Type 1B	**Installation Depth**	50 mm Back Box
Pollution degree	2	**Compatibility**	Electric underfloor heating Hydronic Underfloor Heating Central Heating Systems (Combi & system boilers with switch live, 230V AC input)
Max. ambient temperature	40°C	**Er-P Class**	IV
Relative humidity	80%	**Warranty**	12 Years
IP Rating	IP33	**Approvals**	BEAB

Contact

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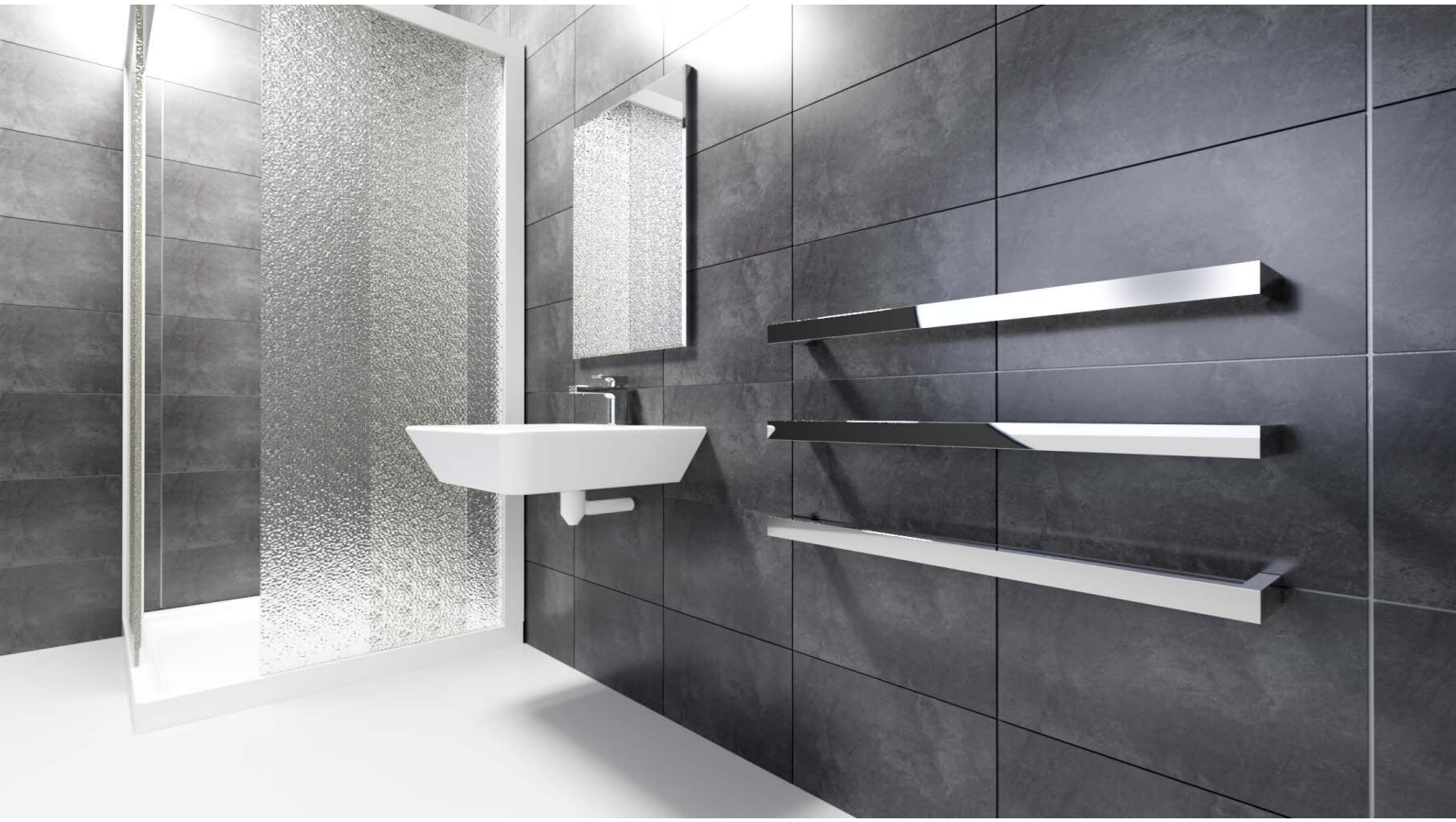
* A random sample of MyHeating app users in the UK saved 25% on the energy used by their connected heating system when using a heating schedule combined with SmartGeo compared with no heating schedule and SmartGeo disabled.

** According to the Department of Energy & Climate Change, switching energy tariff can save on average £210 (Source: CMA, June 2016).

Heated Towel Rails



Overview

Warmup electric heated towel rails are an excellent, energy efficient solution to provide an additional source of heat for your bathroom as well as year round towel drying and warming. The rails use dry heating technology meaning they are maintenance free with no risk of leaks.

The rails are available in both single bar and ladder models with a variety of finishes to suit any bathroom style. They are manufactured using high quality stainless steel (SS304) making them resistant to staining and corrosion, ideal for bathroom environments.

Installation is straightforward as the rails can either be connected into the rooms lighting circuit, enabling the towel rail when the lights are switched on or alternatively they can be controlled by an independent controller that provides power on demand.

Warmup heated towel rails are available in a wide range sizes and wattages to suit all bathrooms.

Bathroom
Heating

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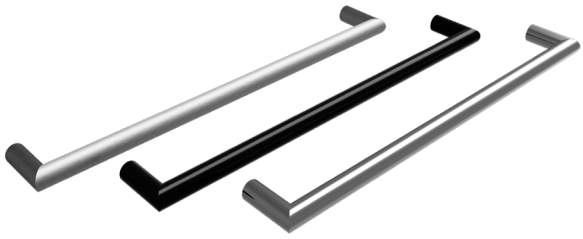
Warmup®
The world's **best-selling** floor heating brand™

Features

- Provides an excellent, energy efficient solution to provide an additional source of heat for your bathroom as well as year round towel drying and warming.
- Uses dry heating technology meaing they are maintenance free with no risk of leaks.
- Manufactured using high quality stainless steel (SS304) making them resistant to staining and corrosion, ideal for bathroom environments.
- Can connect to existing lighting circuit for automatic operation when light is switched or controlled by an independent controller that provides power on demand.
- CE Marked with 5 year warranty

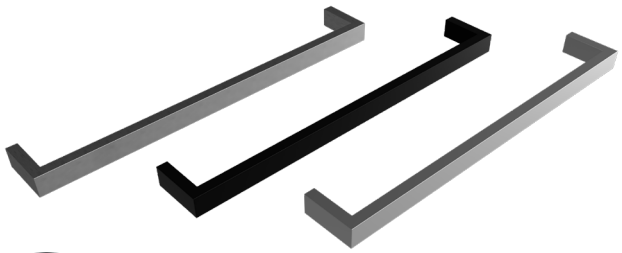
Technical Data

Single Bar Rail - Round



IP55

Single Bar Rail - Square



IP55

PRODUCT CODE	SIZE (mm)	CONNECTION	VOLTAGE	POWER (W)	BTU/hr	LOAD (A)	RESISTANCE +/- 10 % (Ω)
HTR-1ROBR	**Single Bar - Round Brushed** 32(h) x 650(l) x 100(d) mm	3 m coldtail	230 V AC: 50 Hz	19	64.8	0.08	2800
HTR-1ROBL	**Single Bar - Round Black** 32(h) x 650(l) x 100(d) mm	3 m coldtail	230 V AC: 50 Hz	19	64.8	0.08	2800
HTR-1ROPO	**Single Bar - Round Polished** 32(h) x 650(l) x 100(d) mm	3 m coldtail	230 V AC: 50 Hz	19	64.8	0.08	2800
HTR-1SQBR	**Single Bar - Square Brushed** 40(h) x 650(l) x 100(d) mm	3 m coldtail	230 V AC: 50 Hz	19	64.8	0.08	2800
HTR-1SQBL	**Single Bar - Square Black** 40(h) x 650(l) x 100(d) mm	3 m coldtail	230 V AC: 50 Hz	19	64.8	0.08	2800
HTR-1SQPO	**Single Bar - Square Polished** 40(h) x 650(l) x 100(d) mm	3 m coldtail	230 V AC: 50 Hz	19	64.8	0.08	2800

4 Bar Ladder Rail - Round

IP55

4 Bar Ladder Rail - Square

IP55

PRODUCT CODE	SIZE (mm)	CONNECTION	VOLTAGE	POWER (W)	BTU/hr	LOAD (A)	RESISTANCE +/- 10 % (Ω)
HTR-4ROPO	**4 Bar Ladder - Round Polished** 520(h) x 500(l) x 120(d) mm	3 m coldtail	230 V AC: 50 Hz	52	177.4	0.23	1017
HTR-4SQPO	**4 Bar Ladder - Square Polished** 435(h) x 525(l) x 120(d) mm	3 m coldtail	230 V AC: 50 Hz	52	177.4	0.23	1017

6 Bar Ladder Rail - Round

IP55

6 Bar Ladder Rail - Square

IP55

PRODUCT CODE	SIZE (mm)	CONNECTION	VOLTAGE	POWER (W)	BTU/hr	LOAD (A)	RESISTANCE +/- 10 % (Ω)
HTR-6ROPO	**6 Bar Ladder - Round Polished** 600(h) x 650(l) x 120(d) mm	3 m coldtail	230 V AC: 50 Hz	90	307.1	0.39	588
HTR-6SQPO	**6 Bar Ladder - Square Polished** 600(h) x 650(l) x 120(d) mm	3 m coldtail	230 V AC: 50 Hz	95	324.1	0.41	557

8 Bar Ladder Rail - Round

IP55

8 Bar Ladder Rail - Square

IP55

PRODUCT CODE	SIZE (mm)	CONNECTION	VOLTAGE	POWER (W)	BTU/hr	LOAD (A)	RESISTANCE +/- 10 % (Ω)
HTR-8ROPO	**8 Bar Ladder - Round Polished** 800(h) x 530(l) x 135(d) mm	3 m coldtail	230 V AC: 50 Hz	100	341.2	0.43	529
HTR-8SQPO	**8 Bar Ladder - Square Polished** 912(h) x 620(l) x 120(d) mm	3 m coldtail	230 V AC: 50 Hz	115	392.4	0.50	460