

















Say goodbye to cold floors with the Nicobond Undertile Heating System.

Luxurious heated floors within your home are now an affordable reality. Whether you plan to lay a ceramic, porcelain or natural stone floor, the Nicobond Undertile Heating System is the answer.

Easy to install

Lifetime warranty

Cost effective

Bathrooms

Loose cable for small/irregular rooms

Roll matting for larger/more regular rooms

Floors dry quicker - safer

Dust mites reduced - benefits to asthma sufferers







Kitchens



Living rooms

### Giving you total support

### **Technical Support**

N&C Nicobond has been heavily involved in the creation of British & European Standards for decades. We have chaired The Tile Association and their Wet Room Technical Committee. Our philosophy has always been to drive up quality and standards whilst remaining highly competitive.

### Fail-safe Installation

If you inadvertently damage your cable or matting system prior to tiling we will replace it with another of the same part number FREE OF CHARGE\* (\*Limited to one heater per customer/claim)



### Lifetime Warranty

We can confidently offer a Lifetime warranty on the cables and mats due to our very stringent manufacturing policies, Quality Control procedures and Testing. Registering your heating products for our Lifetime Warranty will give you ultimate peace of mind from a Quality Manufacturer with over 130 years manufacturing experience.







**Bedrooms** 



Halls

### Where do I start? Simple...it's childs play

We are confident that by simply reading this brochure you will see how easy installing Nicobond Undertile Heating really is.

### Step 1 - Measure Your floor

You don't need to include any areas under permanent fixtures such as kitchen units, sinks, appliances or any removable furniture that does not have an air gap underneath it.

### Step 2 – Choose your product

Refer to our product selector on page 6 or if in doubt call our Technical Team on 020 8123 2790 for advice.

### Step 3 - Consider your background

In order for you to achieve the maximum benefit from your floor heating it is advisable to ensure your floor has adequate insulation properties. This is especially important on concrete floors in a conservatory/extension for instance, after all you are trying to heat the floor and the room, not the concrete underneath! For details of Nicobond Tile Backer Board please refer to page 13.



# All you do is...

### Fit your heating system:

Using the instructions supplied in each kit install your chosen item. If you have mislaid your instructions for any reason additional copies can be downloaded at www.ncdirect.co.uk. Be sure to protect your heating system in preparation for your floor covering.

### Fit your chosen floor covering

Now your selected cable or mat is in place fit your chosen floor covering. (Once fitted, be sure to allow the tile adhesive and grout to fully dry for a minimum of 7 days before switching on your heated floor).



### **Check electrical connections**

Check all connections and connect to your electricity supply. This stage must be carried out by a qualified electrician.

### Enjoy your floor

Having left the finished floor to dry as specified, the waiting is now over, switch on and enjoy the luxurious warmth of your new beautiful floor.



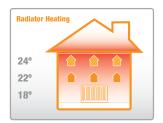
### **Efficient Heating Solution**

Traditional radiator based room heating

Can create draughts
Warm air nearest to ceiling/radiator
Heat loss via windows and roof
Uneven heat distribution within the room
Risk to children re hot surfaces
Can restrict furniture placement

### With Nicobond Undertile Heating

Draughts minimised Even heat spread within the room Warmer at feet level Comfortable heat at eye level





Once your luxurious heated floor is in use you can be safe in the knowledge that you have no additional maintenance costs to consider



No annual contract to budget for



No periodic 'flushing' out

No parts to fail due to hard water etc

No haggling over property price due to potential boiler replacement costs.

No loss of performance with age

	Floor Type	Ceramic Tile	Porcelain Tile	Natural Stone	Carpet	Vinyl	Wood/ Laminate
Cable		✓	✓	✓	<b>√</b> ∗	<b>√</b> ∗	<b>√</b> ∗
Matting		✓	✓	✓	n/a	n/a	n/a

<sup>\*</sup>cable undertile heating can be used under these materials when covered with Nicobond Multiflo Fibre Screed, see installation instructions for details.

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### Why N&C Nicobond?

### A Name You Can Trust

With over 130 years of experience manufacturing and supplying the building industry, N&C Nicobond have often experienced most of the scenarios that occur in the majority of building and DIY projects.

### Innovators

N&C Nicobond invented ready mixed tile adhesive in 1958 and continue to be market leading innovators. We have spent the last 50 years developing innovative N&C Nicobond products that solve the challenges faced in today's construction industry.



### **UK Tile Association**

TTA – N&C Nicobond are members of the UK Tile Association (TTA) Formed in January 2000, The Tile Association represents the whole of the UK wall and floor tile industry under one organisation. It has more than doubled in size since originally formed and now has more than 750 members, consisting of tiling contractors, fixers, distributors, retailers and manufacturers. Its mission is to promote professionalism and technical standards in the tiling industry, as well as provide technical support to both members and their customers



### **Total Solution Providers**

Total peace of mind. As manufacturers of the whole package you can rest assured that you have outstanding quality throughout the installation from the Tile Backer Boards, tanking, tile adhesives, grouts and finally the Undertile Heating System, no other manufacturer gives you the total solution.

### The Most Compliant System

Our system is independently approved by BEAB to the very latest standards and tests, our constant research and development ensures we work closely with the Standards companies to keep up to date in all aspects of tiling and undertile heating related technologies.



Part Number	Area	Length	Width	Wattage	Resistance
N2550006	0.6m <sup>2</sup>	1.2m	0.5m	130W	442Ω
N2550010	1.0m <sup>2</sup>	2m	0.5m	208W	<b>277</b> Ω
N2550016	1.6m²	3.2m	0.5m	310W	186Ω
N2550020	2.0m <sup>2</sup>	4.0m	0.5m	405W	142Ω
N2550026	2.6m <sup>2</sup>	5.2m	0.5m	512W	<b>113</b> Ω
N2550028	2.8m <sup>2</sup>	5.6m	0.5m	576W	100Ω
N2550035	3.5m <sup>2</sup>	7.0m	0.5m	719W	80Ω
N2550042	4.2m <sup>2</sup>	8.4m	0.5m	854W	<b>67</b> Ω
N2550054	5.4m <sup>2</sup>	10.8m	0.5m	1083W	<b>53</b> Ω
N2550060	6.0m <sup>2</sup>	12m	0.5m	1196W	<b>48</b> Ω
N2550067	6.7m <sup>2</sup>	13.4m	0.5m	1353W	<b>43</b> Ω
N2550075	7.5m <sup>2</sup>	15m	0.5m	1504W	<b>38</b> Ω
N2550089	8.9m <sup>2</sup>	17.8m	0.5m	1769W	<b>33</b> Ω
N2550099	9.9m²	19.8m	0.5m	1973W	29Ω



Unroll your selected heating mat



Cut the heating mat only, not the cable when laying around an obstruction



Fit until whole floor is covered

- 200W/m<sup>2</sup> output
- Suitable as primary heat source in most rooms
- Pre-spaced cables
- Ideal for larger, regular shape rooms
- Available in numerous size options
- Fixes directly to Nicobond Tile Backer Board
- Lifetime Warranty
- BEAB system approval















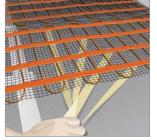








Floor sensor must be placed under the mat between two heating cables



Once in place remove self adhesive tape backing



Ensure warning labels are laid flat on your floor



Nicobond Undertile Heating Cable

Loose undertile heating cable allowing easy installation regardless of the room size or shape

			A		
Part Number	Length (metres)	Resistance	Wattage	150W/m² Output at 10cm spacing	200W/m² Output at 7.5cm spacing
N2550200	13m	<b>265</b> Ω	200W	1.3m²	1.0m²
N2550300	20m	176Ω	300W	2.0m <sup>2</sup>	1.5m²
N2550400	26m	<b>132</b> Ω	400W	2.7m <sup>2</sup>	2.0m <sup>2</sup>
N2550600	40m	<b>88</b> Ω	600W	4.0m <sup>2</sup>	3.0m <sup>2</sup>
N2550800	53m	<b>66</b> Ω	800W	5.3m <sup>2</sup>	4.0m²
N2551000	66m	<b>53</b> Ω	1000W	6.7m <sup>2</sup>	5.0m²
N2551400	93m	<b>38</b> Ω	1400W	9.3m²	7.0m²
N2551600	106m	<b>33</b> Ω	1600W	10.7m²	8.0m <sup>2</sup>



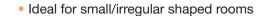
Lay strips of double sided tape to the floor



Peel backing from the tape



Mark alongside the tape your spacings, cable to cable



- Adaptable heat output Simply alter the cable spacing
- Easy to install
   Masking & double sided tape included
- Low build height
   Cable lays within the adhesive bed,
   no need to lay screed over the cable when tiling over\*
- Fixes directly to Nicobond Tile Backer board
- UK Manufacture
- Lifetime Warranty

\*Screeding over cable is only required where the finished floor covering is either carpet, vinyl, wood or laminate.

















Lay the cable at your selected spacing securing to the floor using the double sided tape



Cover the double sided tape with masking tape supplied



Do not cut the cable return



Ivory Programmable N2552000 Silver Programmable N2552002

# Nicobond Digistat Programmable Thermostat

A seven day programmable, easy to use thermostat for maintaining floor temperatures exactly as required

- BEAB Approved
- 7 day programmable
- 3 year warranty
- Easy to use
- Backlit display
- Available in ivory and silver
- IP 21 rated

Produced by the world renowned O J Electronics, our BEAB Approved thermostats are easy to program and have an intelligent adaptive function that learns when to switch the system on. Fitted with a 3m floor sensor which is extendable to 100m means the thermostat can be fitted in any convenient location.



### Nicobond Digistat Manual Thermostat

A very easy to use and functional manual thermostat

- BEAB Approved
- Manual control
- 3 year warranty
- Easy to use
- Backlit display
- Available in ivory and silver
- IP 21 rated

Produced by the world renowned O J Electronics, the BEAB Approved Manual Thermostat is extremely easy to operate by simple control of temperature settings. Fitted with a 3m floor sensor which is extendable to 100m means the thermostat can be fitted in any convenient location.

### **Nicobond Tile Backer Board and Construction Panel**

A polystyrene hard foam core and coated with a glass-fibre mesh reinforced cement based mortar layer on both sides



N2553006 600x1200x6mm N2553010 600x1200x10mm N2553012 600x2400x12.5mm N2553020 600x2400x20mm N2553030 600x2400x30mm N2553040 600x2400x40mm N2553050 600x2400x50mm N2553060 600x2400x60mm N2553070 600x2400x70mm N2553084 1200x2400x12.5mm

Nicobond Tile Backer Board is lightweight, very robust, easy to cut, easy to install, waterproof and is available in numerous sizes and thicknesses providing solutions for many tiling and building situations. It can be used as a direct replacement for gypsum plaster board or timber wall boards in wet areas, overlay damaged boards or provide additional protection to similar wall boards.





- Improves undertile heating performance
- Easy to shape
- Available thicknesses 6 70mm
- 87 kg/m2 weight loading for tiles
- Insulating properties
- Economical
- Class O fire rated
- High U value

### Nicobond Fixings and Fittings

	3		3
N2553110	Hammer in fixings	70mm	Pk 10
N2553112	Screws /washers	45mm	Pk 50 ea
N2553114	Screws /washers	25mm	Pk 50 ea
N2553116	Washers	35m	Pk 50
N2553120	Jointing tape	100mm x	90mtr
N5000126	Dot and dab bedding out m	nortar	5kg
N2553130	Polyurethane (PU) adhesive	9	310 ml

# Nicobond Professional Undertile Heating Mat 200W/m<sup>2</sup> Size Ready Reckoner

200W/m² heating mats are designed for use beneath tiled and stone floors on a variety of floor bases including concrete sub-floors, previously tiled floors or thermal insulation boards. When tiling onto existing timber floors these should be sufficiently strengthened using Nicobond Plastic Ply reinforcing sheet, once fitted the Plastic Ply should be filled and coated with a 2mm layer of recommended S2 EN Standard adhesive, this should be allowed to cure prior to laying the heating mats. 200W/m² heating mats are suitable to provide primary heating in most circumstances in nearly all rooms types, including high heat loss rooms such as conservatories. To increase the efficiency of the heating system chosen thermal insulation boards such as Nicobond Tile Backer Board should be used, this is especially important if the sub-floor is very badly insulated, or the room has exceptionally bad heat loss characteristics. (See page 13 for details)

When specifying heating mats, calculate the total free floor space of the room, deducting any floor fixed units, baths, shower trays etc. If installing in a wet room environment using a level access/flat to the floor shower tray include this area within your measurements. All Nicobond undertile heating mats are completely safe for use in wet rooms. Find your m² area in the coverage column on the left hand side of the table and read across for the specified system. The coverage table allows for a pre-determined % deduction from your available floor area to ensure the mats fit and allows for an unheated margin around the edge of the room.

This table is for guidance only. When fitting the mats, the fibre-glass mesh can be removed from the cable to cover any intricate areas.

Please note Nicobond thermostats are rated to a maximum of 16 amps (approx 3,600 watts). The electrician will have to install a contactor or similar device (with appropriate rating) to allow any system which exceeds this to safely operate through a single thermostat.

Nicobond Undertile Heating Mat 200W/m<sup>2</sup>

Sqm Coverage	Wattage Output	Heating Mat/s Required m²	
0.7 - 0.9	130	1 x 0.6m²	
1.0 - 1.5	208	1 x 1.0m²	
1.6 - 2.0	310	1 x 1.6m²	
2.1 - 2.6	405	1 x 2.0m²	
2.7 - 2.9	512	1 x 2.6m²	
3.0 - 3.3	576	1 x 2.8m²	
3.4 - 3.6	620	2 x 1.6m²	
3.7 - 4.0	719	1 x 3.5m²	
4.1 - 4.4	784	1 x 2.8m <sup>2</sup> + 1 x 1.0m <sup>2</sup>	
4.5 - 4.7	854	1 x 4.2m²	
4.8 - 5.0	927	1 x 3.5m² + 1 x 1.0m²	
5.1 - 5.4	981	1 x 2.8m² + 1 x 2.0m²	
5.5 - 5.7	1,024	2 x 2.6m²	
5.8 - 6.0	1,083	1 x 5.4m²	
6.1 - 6.3	1,164	1 x 4.2m² + 1 x 1.6m²	
6.4 - 6.6	1,196	1 x 6.0m²	
6.7 - 6.9	1,295	1 x 2.8m² + 1 x 3.5m²	
7.0 - 7.5	1,353	1 x 6.7m²	
7.6 - 7.8	1,438	2 x 3.5m²	
7.9 - 8.3	1,504	1 x 7.5m²	
8.4 - 8.7	1,601	1 x 6.0m <sup>2</sup> + 1 x 2.0m <sup>2</sup>	
8.8 - 9.3	1,708	2 x 4.2m²	
9.4 - 9.8	1,769	1 x 8.9m²	
9.9 - 10.3	1,909	1 x 7.5m² + 1 x 2.0m²	
10.4 - 10.6	1,973	1 x 9.9m²	
10.7 - 10.9	2,050	1 x 6.0m² + 1 x 4.2m²	
11.0 - 11.3	2,079	1 x 8.9m² + 1 x 1.6m²	
11.4 - 11.8	2,181	1 x 9.9m² + 1 x 1.0m²	
11.9 - 12.3	2,279	1 x 5.4m <sup>2</sup> + 1 x 6.0m <sup>2</sup>	
12.4 - 12.8	2,378	1 x 9.9m² + 1 x 2.0m²	
12.9 - 13.1	2,488	1 x 8.9m <sup>2</sup> + 1 x 3.5m <sup>2</sup>	
13.2 - 13.5	2,549	1 x 9.9m² + 1 x 2.8m²	
13.6 - 13.9	2,623	1 x 8.9m² + 1 x 4.2m²	
14.0 - 14.4	2,700	1 x 7.5m <sup>2</sup> + 1 x 6.0m <sup>2</sup>	
14.5 - 14.9	2,827	1 x 9.9m² + 1 x 4.2m²	
15.0 - 15.4	2,852	1 x 8.9m <sup>2</sup> + 1 x 5.4m <sup>2</sup>	
15.5 - 15.9	3,008	2 x 7.5m²	
16.0 - 16.4	3,122	1 x 8.9m <sup>2</sup> + 1 x 6.7m <sup>2</sup>	
16.5 - 17.1	3,169	1 x 9.9m <sup>2</sup> + 1 x 6.0m <sup>2</sup>	
17.2 - 17.8	3,326	1 x 9.9m² + 1 x 6.7m²	
17.9 - 18.4	3,477	1 x 9.9m <sup>2</sup> + 1 x 7.5m <sup>2</sup>	
18.5 - 19.4	3,538	2 x 8.9m²	

### Nicobond Undertile Heating Cable Size ready reckoner

200W/m² - 150W/m² heating cables are designed for use beneath tiled and stone floors on a variety of floor bases including concrete sub-floors, previously tiled floors or thermal insulation boards. When tiling onto existing timber floors these should be sufficiently strengthened using Nicobond Plastic Ply reinforcing sheet, once fitted the Plastic Ply should be filled and coated with a 2mm layer of recommended S2 EN Standard adhesive, this should be allowed to cure prior to laying the heating cables. 200W/m² - 150W/m² heating cables are suitable to provide primary heating in most circumstances in nearly all rooms types, including high heat loss rooms such as conservatories. To increase the efficiency of the heating system chosen thermal insulation boards such as Nicobond Tile Backer Board should be used, this is especially important if the sub-floor is very badly insulated, or the room has exceptionally bad heat loss characteristics. (See page 13 for details)

When specifying heating cables, calculate the total free floor space of the room, deducting any floor fixed units, baths, shower trays etc. If installing in a wet room environment using a level access/flat to the floor shower tray include this area within your measurements. All Nicobond undertile heating cables are completely safe for use in wet rooms. Find your m² area in the coverage column on the left hand side of the table and read across for the specified system. The system calculated allows for an unheated margin around the edge of the room. This table is for guidance only.

Please note Nicobond thermostats are rated to a maximum of 16 amps (approx 3,600 watts). The electrician will have to install a contactor or similar device (with appropriate rating) to allow any system which exceeds this to safely operate through a single thermostat.



For details of wet rooms please see N&C Total Wet Rooms Solutions

### Nicobond Undertile Heating Cable 200W/m<sup>2</sup> (Cable to cable spacing = 7.5cm)

Sqm Coverage	Wattage Output	Heating cables/s Required
1.5 - 1.9	300	1 x 300W
2.0 - 2.4	400	1 x 400W
2.5 - 2.9	500	1 x 200W + 1 x 300W
3.0 - 3.4	600	1 x 600W
3.5 - 3.9	700	1 x 400W + 1 x 300W
4.0 - 4.4	800	2 x 400W
4.5 - 4.9	900	1 x 600W + 1 x 300W
5.0 - 5.9	1,000	1 x 1000W
6.0 - 6.9	1,200	2 x 600W
7.0 - 7.4	1,400	1 x 1400W
7.5 - 8.4	1,500	1 X 1000W + 1 X 300W + 1 X 200W
8.5 - 9.4	1,700	1 X 1000W + 1 X 400W + 1 X 300W
9.5 - 10.4	1,900	1 X 1600W + 1 X 300W
10.5 - 11.9	2,100	1 X 1600W + 1 X 300W + 1 X 200W
12.0 - 13.4	2,400	1 X 1600W + 1 X 800W
13.5 - 14.9	2,700	1 X 1600W + 1 X 800W + 1 X 300W
15.0 - 15.9	3,000	1 X 1600W + 1 X 1400W
16.0 - 18.0	3,200	2 X 1600W
18.1 - 20.1	3,800	2 X 1600W + 1 X 600W
20.2 - 21.9	4,200	2 X 1600W + 1 X 1000W
22.0 - 23.9	4,400	1 X 1600W + 2 X 1400W
24.0 - 25.0	4,800	3 X 1600W

### Nicobond Undertile Heating Cable 150W/m<sup>2</sup> (Cable to cable spacing = 10cm)

Sqm Coverage	Wattage Output	Heating cables/s Required
1.1 - 1.4	200	1 X 200W
1.5 - 2.4	300	1 X 300W
2.5 - 3.0	400	1 X 400W
3.1 - 3.7	500	1 X 200W + 1 X 300W
3.8 - 4.2	600	1 X 600W
4.3 - 5.0	700	1 X 400W + 1 X 300W
5.1 - 5.6	800	2 X 400W
5.7 - 6.2	900	1 X 600W + 1 X 300W
6.3 - 7.1	1,000	1 X 1000W
7.0 - 8.3	1,200	2 X 600W
8.4 - 9.4	1,400	1 X 1400W
9.5 - 10.5	1,500	1 X 1000W + 1 X 300W + 1 X 200W
10.6 - 12.0	1,700	1 X 1400W + 1 X 300W
12.1 - 13.2	1,900	1 X 1600W + 1 X 300W
13.3 - 14.9	2,100	1 X 1600W + 1 X 300W + 1 X 200W
15.0 - 17.0	2,400	1 X 1600W + 1 X 800W
17.1 - 18.5	2,700	1 X 1600W + 1 X 800W + 1 X 300W
18.6 - 20.7	3,000	1 X 1600W + 1 X 1400W
20.8 - 23.0	3,200	2 X 1600W
23.1 - 25.0	3,600	1 X 1600W + 2 X 1000W

### Porcelain - Ceramic tiles to sand/cement screed incorporating electrical undertile heating system

### **Recommended Adhesives**



Rapidflex



Adhesive

Nicobond Large Format Floor Tile





Nicobond Natural Stone Speedflex



Nicobond Rapidflex Grout



Nicobond Flexible Grout

# Alternative method when

### installing natural stone:

Item 3 - substitute recommended adhesive with Nicobond Natural Stone Speedflex.

All other details remain the same.

- 1. Concrete or sand: cement screed base, fully cured, flat and clean
- 2. To improve heating performance we recommend 10mm Nicobond Tile Backer Board is used as an insulation layer.
- 3. The Tile Backer Board to be adhered directly to the concrete/sand:cement screed using Nicobond Rapidflex Adhesive and allowed to dry
- 4. Lay out the wire and tape in position
- 5. Spread the adhesive over the wires and boards and solidly bed porcelain tiles into recommended adhesive 3-6mm thick using slight sliding action
- 6. Fill joints between tiles using recommended grout

\*Allow at least 6 weeks for structural concrete floors to cure and a further 3 weeks for subsequently applied screed. In the event that a rapid setting cement replacement is used the drying time of screed will be greatly reduced. Refer to the technical team for futher information \*The tile adhesive must be fully dry (minimum 7 days) before the heating is switched on.

### Alternative Adhesives:

Nicobond Floor and Wall Adhesive/Enhancer 2002 Nicobond Fast Floor and Wall Adhesive/Enhancer 2002

### Alternative Grouts:

Nicobond Tilers Grout/Enhancer 2002 Nicobond Wide Joint Grout/Enhancer 2002

### **Recommended Grouts**



### A business dedicated to a sustainable future

As a leading manufacturer and distributor of tile adhesive systems, grouts and floor screeding compounds we understand the need to work towards creating a sustainable business. We have already taken great strides but recognise there is still more to do. We continue to focus on six key 'green' steps that help us move forward in further reducing our impact on the community and its surrounding environment.

### 1.Product Development

We develop products that minimise their impact on the environment. All elements including the raw materials, the manufacturing process and the type of packaging are considered. Recycled and recyclable materials are used wherever possible.

### 2. Carbon Footprint

Our manufacturing processes, buildings, delivery and travel policies are monitored continuously which has already reduced our carbon emissions.

### 3. Waste Reduction

The latest manufacturing techniques and the use of grev water technologies have reduced the amount of waste our manufacturing facilities create.

### 4.Recycling

We have made significant progress to date and now recycle all our plastics, wood, cardboard and paper.

### 5. Energy Saving

Our aim is to keep our energy consumption to a minimum and to use the greenest sources wherever possible.



### 6. Social Responsibility

We believe that a sustainable and responsible business will ultimately become a more successful one. We work closely with our local communities and a national charity that help disabled children and young people live a life of greater freedom.





# Your one stop shop for undertile heating

- \* 200W/m2 undertile heating mat
- \* Loose wire undertile heating cable
- \* Thermostats
- \* Insulated tile backer board
- \* Adhesives and grouts

www.ncdirect.co.uk