



UNDERFLOOR HEATING PRODUCT HANDBOOK 2019-2020

ambiente®

more than underfloor



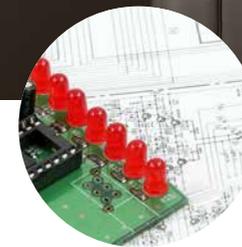
AN INTRODUCTION TO **AMBIENTE**

AMBIENTE HAS BEEN TRADING SINCE 2006. WE SPECIALISE IN THE DESIGN, MANUFACTURE AND SUPPLY OF HYDRONIC UNDERFLOOR HEATING SYSTEMS.

As the popularity for underfloor heating has grown, we have added and developed many new products and systems to stay at the forefront of the market. We are different from many of our competitors, in that we focus solely on underfloor heating – this gives you the assurance that your system will perform to the highest standard and that your enquiry will be treated with the highest level of care and attention.



LIFETIME
PIPEWORK
WARRANTY



ONGOING
PRODUCT
DEVELOPMENT



EXCEPTIONAL
CUSTOMER
SERVICE

WHATEVER YOUR BUILDING TYPE, WE ARE SURE WE CAN PROVIDE AN UNDERFLOOR HEATING SYSTEM TO MEET YOUR REQUIREMENTS.

We pride ourselves on a wealth of industry knowledge and experience, enabling us to advise on the very best underfloor heating system for your project. Our wide range of systems include options for nearly every floor construction and we can cater for many client preferences such as the ability to control the heating from a smartphone.

We believe in the importance of supporting our customers throughout the project process – right from initial design and product specification, through to project delivery and after-sales support. Our team are on hand to offer realistic and helpful guidance to all parties involved.



AN OVERVIEW OF HOW UFH WORKS

Heat reaches into every corner of the room with underfloor heating, ensuring there are no cold spots, no hot heads and no chilly feet!

This radiant form of heating is much more comfortable than the convected heat provided by radiators which draws cold air across the floor, heating it and then convecting it upwards towards the ceiling.

Underfloor heating works by circulating warm water through a series of continuous loops that are fitted underneath your floor, creating a large radiant surface that heats your room from the floor upwards.

Underfloor cooling works in very much the same way as underfloor heating except the energy transfer is reversed.

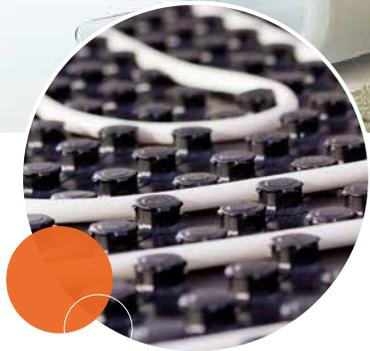
This process of passing chilled water through the floor keeps the floor area cool which continually absorbs warm air from the room.

Where underfloor heating radiates thermal energy from the floor surface into the air space, underfloor cooling relies on warm air passing over the cooler floor surface, which absorbs radiant energy from the air and reduces the air temperature in the room.



COMPARING UNDERFLOOR HEATING WITH RADIATORS

- 1 Radiators
- 2 Underfloor Heating



OUR MOST COMMON FAQS

ARCHITECT/DEVELOPER QUESTIONS

Where do I start in specifying underfloor heating on my projects?

Get in contact with Ambiente today – we can provide resources and advice, as well as assisting in incorporating the heating pipework within proposed floor constructions. We can also provide case studies and show examples from our wealth of experience.

Does Ambiente deal with the design element of underfloor heating?

Yes, Ambiente offers a full UFH CAD design service including pipework layouts, heat output calculations and in some instances heat loss calculations. All design work is carried out to relevant standards (in particular BS EN1264) and follows CIBSE guidelines.

What is the best way to control underfloor heating?

Control is a key element of underfloor heating, as it can make all the difference to the efficiency of the system. As UFH typically takes a longer time than radiators to heat up and cool down, this needs to be taken into account on the programming of the system. Ambiente always recommends the use of a 7-day programmable thermostat, to maximise efficiencies and configure the heating to the lifestyle of the homeowner. There are also other upgrade options, for example smartphone control.

HOMEOWNER QUESTIONS

How can I be sure that my underfloor heating will not leak beneath the floor?

Ambiente pipework is designed to stringent standards, meaning we can offer a lifetime warranty – giving you complete peace of mind.

Is underfloor heating more efficient than radiators?

In almost all cases, yes, it is more efficient – this is because it utilises lower flow temperatures and works by more gentle radiation of heat rather than convection.

What floor coverings can be laid on top of underfloor heating?

Most floor coverings are suitable for use with underfloor heating, but thought should be given to the resistance of the proposed covering. Tiled floors work very well with underfloor heating as they have a low thermal resistance, with deep-pile carpets being the worst! The resistance of your chosen floor covering will be taken into account at design stage, to make sure it is suitable for use.

INSTALLER QUESTIONS

Can underfloor heating be incorporated into any floor construction?

Ambiente provides systems to enable you to include UFH into most floor constructions. The most common method is to include the pipework within the floor screed build-up in the initial stage. However, we can also cater for joisted, structural, floating, low profile and even wall-heating systems.

What benefits are there for me to use Ambiente over another supplier?

Ambiente provides many benefits to installers including product training, dedicated account management, full technical back-up and even free tools such as pipe de-reelers where relevant. On top of all this, we offer a fantastic range of quality products with industry-leading warranties and all at competitive prices.

Do Ambiente systems have to be installed by professional installers?

We recommend that all underfloor heating systems are fitted by a competent installer, but Ambiente can assist any plumber in the installation of our systems, through means of training and advice.



AN OVERVIEW OF UFH DESIGNS

Having our own design team means that we can offer a quick and flexible approach, ensuring that there are no unnecessary delays to your project programme. We work closely alongside the architect and/or consultant to ensure that the system we propose will adequately meet the heat loss of the building.

Here at Ambiente we offer a complete Underfloor Heating CAD design service for your projects including pipe layouts, heat outputs and optional heat loss calculations.



In order to carry out a UFH design, we will require clear layout plans and typically we would be contacting you for some additional information as shown:

LOCATION OF MANIFOLD(S)

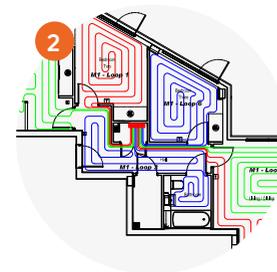
THE HEAT SOURCE AND THE FLOW TEMPERATURE THAT CAN BE ACHIEVED

PROPOSED FLOOR COVERINGS AND APPLICABLE TOG RATINGS

AMBIENTE UFH DESIGNS - WHAT IS INCLUDED...

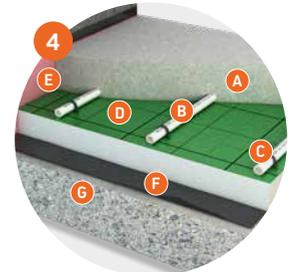
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Underfloor Heating Outputs													
Manifold	Room	Floor Detail	Pipe Diameter (mm)	Room Area (m ²)	UFH Area (m ²)	Room Design Temperature (°C)	Flow / Return Temperature (°C)	Floor Covering	Floor Covering Resistance (m ² KW)	Pipe Spacing (mm)	Design Output (w)	Floor Temp(°C)	
1	Kitchen/Dine/Living	AmbiTak	17	19.6	17.1	21	55 / 45	Ceramic	0.00	200/150	1471	29.0	
	Bathroom	AmbiTak	17	2.3	1.2	22	55 / 45	Ceramic	0.00	150	143	33.0	
	Hall	AmbiTak	17	4.6	4.6	18	55 / 45	Ceramic	0.00	200	547	29.0	
	Bedroom 3	AmbiTak	17	5.0	4.6	18	55 / 45	Carpet	0.15	200/150	547	29.0	
	Bedroom 2	AmbiTak	17	5.8	5.4	18	55 / 45	Carpet	0.15	200/150	543	29.0	
	Master Bedroom	AmbiTak	17	10.2	8.8	18	55 / 45	Carpet	0.15	200/150	1047	29.0	
	Ensuite	AmbiTak	17	2.2	1.1	22	55 / 45	Ceramic	0.00	150	131	33.0	
	TOTAL				49.7	42.8						4529	



3

Pipe Allocation			
Room	Manifold	Port	Length
Bedroom2	1	1	35
Master Bedroom/Ensuite	1	2	65
Hall / Bathroom	1	3	32
Kitchen/Dine/Living	1	4	59
Kitchen/Dine/Living	1	5	43
Bedroom 3	1	6	34



1. THE OUTPUT TABLE

The output table gives the system output data, including the room design temperature, the flow temperature, floor covering and the resulting heat output. This output would then be plotted against the room heat loss to make sure the system is meeting it adequately.

2. PIPE LAYOUTS

We plot the actual positions of the pipework within the floor to show the installer the exact pattern to work to.

3. PIPE SPACING & ALLOCATION

We work out the spacing of the pipework for each individual area, and also an allocation table to show which coils should be used to cover which loops.

4. SYSTEM TYPE

A clear floor section diagram shows which system has been designed.

- A FLOOR SCREED**
- B 17MM AMBIENTE UFH PIPE**
- C TACKER STAPLES**
- D LAMINATED INSULATION BOARD**
- E BORDER EDGE INSULATION**
- F ACOUSTIC DETAIL AND/OR DPM (IF REQUIRED)**
- G CONCRETE SUBFLOOR**



Need expert advice?

We have a wealth of resources online to show you exactly how to programme your thermostat. Visit our website today to find out more.



AN OVERVIEW OF AMBIPAK

Ambipak colour coded packaging plan, designed for your convenience.

At Ambiente, we are forever looking at ways to make your installation easier and smoother. Having listened to valuable customer feedback, we have come up with our exclusive packaging plan 'Ambipak'.

This is a unique and innovative method of packaging up your order to ensure that you only need to unpack each item as you require them, greatly reducing the risk of parts going missing on site.



+ RED ITEMS

These are your first fix items. So everything you will need in the initial pipework installation – pipe, manifolds, couplings, fixings etc.

- Items typically consist of :
- + Manifold/valves/couplings
 - + Pump/blender valve
 - + UFH pipework
 - + Pipe fixings/clips etc.



+ YELLOW ITEMS

This includes all second fix or electrical items. Thermostats, wiring centres, actuators.

- Items typically consist of :
- + Thermostats/timeclocks
 - + Wiring centres
 - + Actuator valves
 - + Remote sensors



+ GREEN ITEMS

Finally, documentation. All the information you will need for your project – installation test guides, UFH designs, pressure test certificates.

- Items typically consist of :
- + UFH layout/design
 - + Relevant installation guides
 - + Wiring information/diagrams
 - + Other information



+ HOUSE PACKS

Another solution developed by Ambiente is House packs, which are especially valuable on developments of multiple apartments with different types and numbers. We simply pack everything relating to each house/flat type into one outer box, which can then be dropped off at that dwelling, ready for installation.



AN OVERVIEW OF INSTALLER BENEFITS

Ambiente believes in offering a superior level of support to our customer base of plumbers and installers, promoting a high level of repeat custom.

Ambiente offers the option for customers to join our 'accredited' installer network, giving you access to the following benefits:

- + FREE Training and Support
- + FREE UFH Tools*
- + FREE Project Leads

Please enquire about how you can join up today and prove these benefits.



*Free pipe de-reelers for 700m drums on your first applicable order with us.



WE ASKED A SELECTION OF THESE INSTALLERS THE REASON FOR THEIR REPEAT CUSTOM – THIS IS WHAT THEY SAID:

1 PREMIUM PRODUCTS

Flexible, durable, easy and quick to install solutions.

2 GREAT SERVICE

From initial project recommendations to after-sales technical calls, the team were always on hand to answer questions and solve difficulties, with a flexible, 'can-do' approach.

3 ADDITIONAL BENEFITS

From free pipe de-reelers to project leads, Ambiente seeks to support its customers, in order to add value to the installer's business and help to provide future work for them.



Our Warranty

We are so confident in the quality of our PE-RT underfloor heating pipework, that we offer a lifetime warranty against product defect.



SCREEDED FLOOR SYSTEMS

Screeded systems are the most popular and effective type of underfloor heating. Pipes are clipped or stapled onto an insulation layer then the screed is laid on top. The warm pipes effectively heat up the whole screed slab, giving even and consistent heat output.

- + Rapid installation
 - + Maximum output
 - + Versatile pipe layout
- Guide output : 100w/m²

SUSPENDED FLOOR SYSTEMS

Used for joisted or battened floors, we offer a range of plated solutions to suit each application. The aluminium plate either spans the joists or is fixed from underneath and supports the pipes as well as spreading heat for an even heat output.

- + For joisted/battened floors
 - + No impact on floor build up
 - + Maximum heat transfer
- Guide output : 70w/m²

FLOATING FLOOR SYSTEMS

Floating floor systems consist of pipes laid into pre-grooved and foiled insulation boards which can be laid directly onto the floor surface below.

- + Can be used in existing floor constructions
 - + Quick response time
 - + Improves insulation value
- Guide output : 80w/m²

LOW PROFILE FLOOR SYSTEMS

Low Profile systems are ever-increasing in popularity as more people see the benefits of underfloor heating and want to add it to their property. They can be laid directly onto any solid floor surface to provide an even heat output with minimal floor build-up.

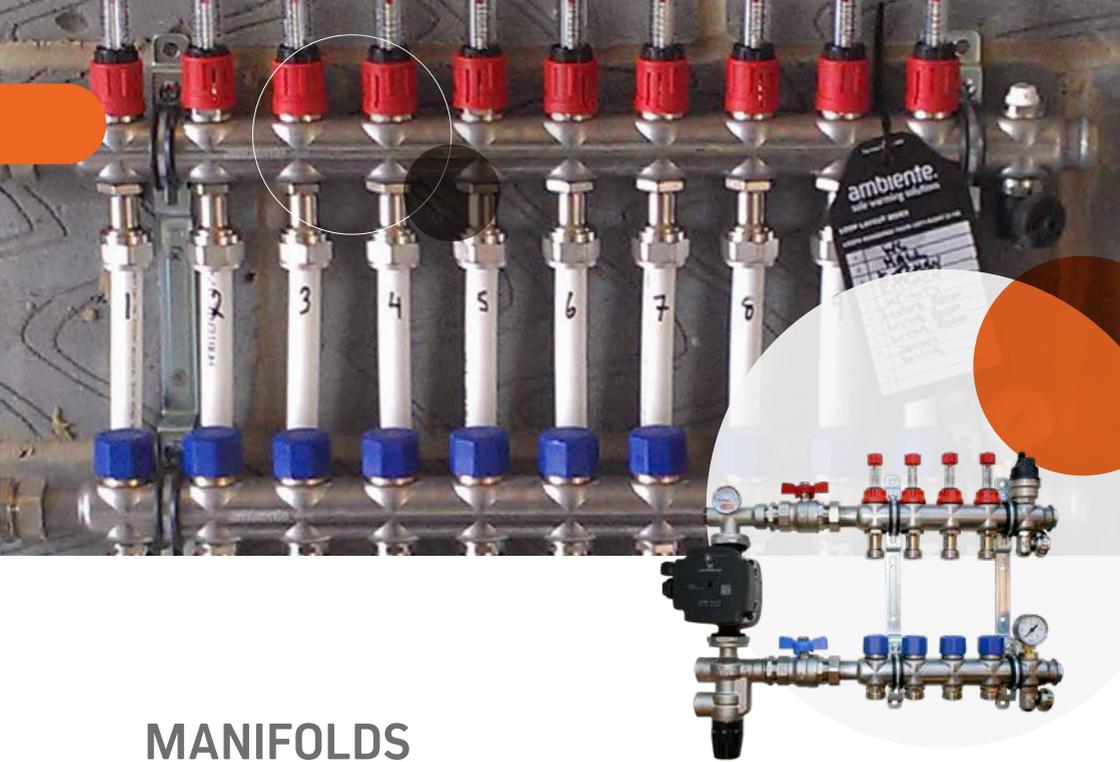
- + Slim floor build up, minimum impact on floor build up
 - + Suitable for refurbishment projects
 - + Add UFH to existing property
- Guide output : 80w/m²

SPECIALIST SYSTEMS

We have developed some specialist systems to cater for specific requirements such as structural floor areas, raised access floor systems and even a revolutionary wall heating solution.

BESPOKE SYSTEMS

Ambiente offers the unique service of manufacturing bespoke systems to cater for any unusual or demanding requirements. Our design team will be happy to assist you in your project and work with you to come up with the best system to meet your needs.

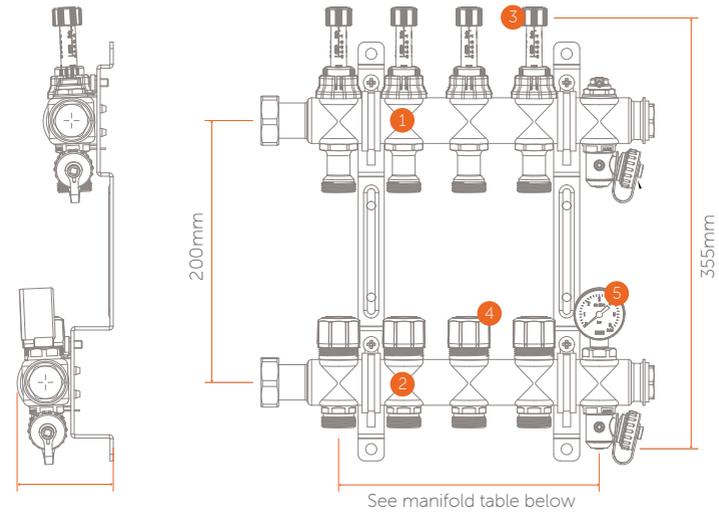


MANIFOLDS

Pre-assembled stainless steel distribution manifold with 3/4" Euro cone take-offs. (Includes fill/drain valves, pressure gauge and mounting brackets).



Type	Code
Manifold 1 port	41299
Manifold 2 port	41300
Manifold 3 port	41310
Manifold 4 port	41320
Manifold 5 port	41330
Manifold 6 port	41340
Manifold 7 port	41350
Manifold 8 port	41360
Manifold 9 port	41370
Manifold 10 port	41380
Manifold 11 port	41390
Manifold 12 port	41395
Manifold 13 port	41396
Manifold 14 port	41397



- 1 Manifold flow bar
- 2 Manifold return bar
- 3 Flow meter
- 4 Actuator head (shown with pre-install caps)
- 5 Pressure gauge

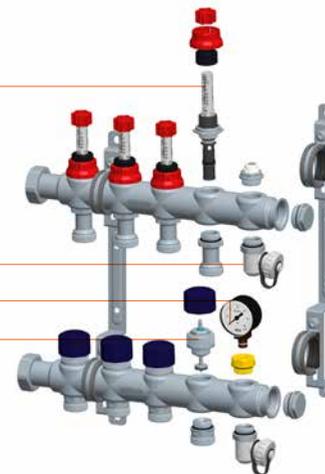
Number of ports	1	2	3	4	5	6	7	8	9	10	11	12	13	14
Manifold length (mm)	142	192	242	292	342	392	442	492	542	592	642	692	742	792

42180

42410

42184

42181



Recommended minimum installation clearances: 200mm between the finished floor level (FFL) and bottom of the manifold, 100mm above the manifold, 50mm to either side of the manifold and allow an extra 100mm for the connection of the primary flow/return pipework.

MANIFOLD COUPLINGS



3/4" Coupling for 12 x 1.5mm Pipe

Order Code: 42189



3/4" Coupling for 17 x 2mm Pipe

Order Code: 42200



3/4" Coupling for 16 x 2mm Pipe

Order Code: 42250



3/4" Coupling for 15mm copper/plastic
(Note: If used with plastic pipe, the associated pipe stiffener/insert will need to be utilised)

Order Code: 42197



Straight connector 3/4"
(Pipe repair for use with relevant pipe couplings to join pipe)

Order Code: 42105

MANIFOLD ACCESSORIES (SUPPLIED WITH MANIFOLD EXCEPT WHERE STATED)



Manifold bypass
(Not supplied with manifold)

Order Code: 41400



1" pair of ball valves
(Not supplied with manifold)

Order Code: 42050



1" pair of ball valves with temperature gauge
(Not supplied with manifold)

Order Code: 42060



1" M/F elbow
(Used to rotate the pumpset through 90 degrees as a space saving measure)

Order Code: 42125



Flow meter replacement

Order Code: 42180



Actuator replacement valve

Order Code: 42181

MANIFOLD ACCESSORIES (SUPPLIED WITH MANIFOLD EXCEPT WHERE STATED)



Manifold blanking cap
(Requires 24mm Fibre washer for secure fitting)

Order Code: 42183



Pressure gauge and adaptor

Order Code: 42184



Auto air vent
(Not supplied as standard)

Order Code: 42390



Fill/drain valve

Order Code: 42410



Manifold tag

Order Code: 46755

MANIFOLD CABINETS

Recessed Manifold Cabinets - made to order, please enquire



Backless surface mounted cabinet
(510 x 640 x 135mm - up to 5 port)

Order Code: 42761

Backless surface mounted cabinet
(660 x 640 x 135mm - up to 9 port)

Order Code: 42762

Backless surface mounted cabinet
(810 x 640 x 135mm - up to 10 port)

Order Code: 42763

Backless surface mounted cabinet
(1010 x 640 x 135mm - up to 12 port)

Order Code: 42764





PUMPS & PUMP FITTINGS

On many underfloor heating systems, the water is pumped and blended locally at the manifold. This is done via a combined pump/blender unit, which is fixed to one end of the manifold. Ambiente offer a unique pump/blender unit, in the form of our CircoMax.

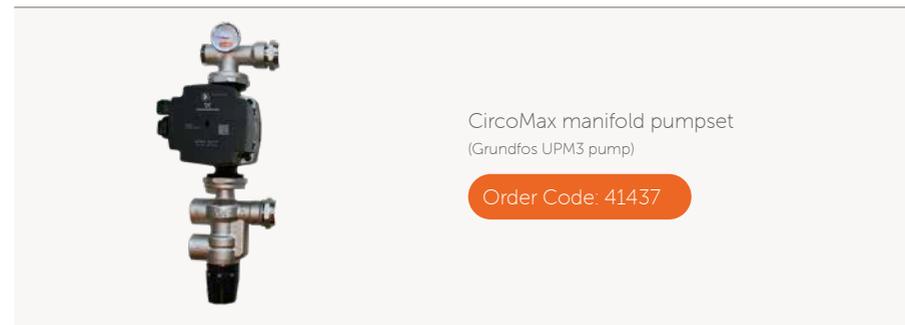


PUMPS/PUMP ASSEMBLIES (WITH BLENDING VALVE)



Single zone pump/blender unit
(Grundfos UPS2 pump)
(Requires 2 no. 42121 adaptors)

Order Code: 41444



CircoMax manifold pumpset
(Grundfos UPM3 pump)

Order Code: 41437



Power Lead for Grundfos UPM3 Pump

Order Code: 41414



Grundfos UPM3 pump
(Supplied as replacement pump for 41434 only)

Order Code: 41432

PUMP FITTINGS



Straight M-M 1/2" - 3/4"
(Sold in pairs for use with single zone pump 41445)

Order Code: 42121



Pump gate valve 22mm

Order Code: 42081



Pump gate valve 28mm

Order Code: 42080



CircoMax Isolation Valves
(Sold in pairs to isolate primary pipework before the pumpset)

Order Code: 42082



Straight connector 22mm x 3/4" BSP (male)

Order Code: 42085



Straight connector 28mm x 1" BSP (male)

Order Code: 42090

ZONE VALVES AND BLENDING VALVES / ACTUATOR VALVES (FOR INDIVIDUAL LOOP CONTROL)



Blending valve 22mm
(Temperature range 35-65°C)

Order Code: 43040



Blending valve 28mm
(Temperature range 35-60°C)

Order Code: 43041



Motorised valve 22mm (230v)

Order Code: 43070



2 wire actuator valve (230v), N/C, spring return (2m lead)

Order Code: 43016

2 wire actuator valve (24v), N/C, spring return (2m lead)

Order Code: 43021



UNDERFLOOR HEATING PIPE

Ambiente offers a range of pipework for UFH installations - including PE-RT pipes with both all-plastic construction as well as with an aluminium core. Sizes include 12mm, 16mm and 17mm.

PERT-AL-PERT PIPE



16mm x 2mm PERT-AL-PERT pipe 100 metre roll (MLCP)

Order Code: 40100

16mm x 2mm PERT-AL-PERT pipe 200 metre roll (MLCP)

Order Code: 40110

16mm x 2mm PERT-AL-PERT pipe 500 metre roll (MLCP)

Order Code: 40120

Some installers prefer using MLCP pipework, as the aluminium core gives the pipe a 'memory' - i.e. once bent to shape, it stays in that shape.

PE-RT PIPE



12mm x 1.5mm PE-RT pipe 100 metre roll (5 layer)

Order Code: 39000

12mm x 1.5mm PE-RT pipe 200 metre roll (5 layer)

Order Code: 30020

12mm x 1.5mm PE-RT pipe 500 metre roll (5 layer)

Order Code: 30050



17mm x 2mm 'Type 0' Premium PE-RT pipe 120 metre roll (5 layer)

Order Code: 41000

17mm x 2mm 'Type 0' Premium PE-RT pipe 240 metre roll (5 layer)

Order Code: 41010

17mm x 2mm 'Type 0' Premium PE-RT pipe 700 metre roll (5 layer)

Order Code: 41020



17mm x 2mm Type 1 Commercial Grade PE-RT Pipe 120 metre roll (5 layer)

Order Code: 41003

17mm x 2mm Type 1 Commercial Grade PE-RT Pipe 240 metre roll (5 layer)

Order Code: 41012

17mm x 2mm Type 1 Commercial Grade PE-RT Pipe 500 metre roll (5 layer)

Order Code: 41018

Our 'Type 1' PE-RT pipework is a commercial grade pipe, used in situations where it is not necessary to install with pipe centres of less than 200mm. The Type 1 pipe is slightly less supple than our standard type 0 pipe, and is cheaper to purchase.

PIPE ACCESSORIES



Split flex conduit for 16/17mm pipe 50 metre roll
(Used to protect pipework on expansion joints)

Order Code: 46800



TailTape - 30x3mm, 20m roll
(Used to insulate flow tail pipework)

Order Code: 46809



Pipe bends
(For use below a manifold to take pipes neatly into the floor)

90° (20mm)
Closed form - For 12mm pipe

Order Code: 41040



90° (25mm)
Closed form - For 16/17mm pipe

Order Code: 41050



90° (16-18mm) Open form

Order Code: 41060



Our Warranty

We are so confident in the quality of our PE-RT Type 0 underfloor heating pipework, that we offer a lifetime warranty against product defect.

PIPE FIXINGS



Tacker clips 40mm
(300 pieces)
Use with 44000 tacker gun

Order Code: 41530



AMBITAK

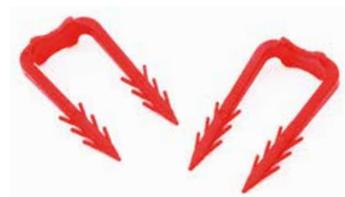


Tacker clips 60mm
(300 pieces)
Use with 44001 tacker gun

Order Code: 41550



AMBITAK



Cliprail clips 45mm
(200 pieces)

Order Code: 41505



AMBICLIP



Cliprail length for 12mm pipe (2m)

Order Code: 41446



AMBICLIP

Cliprail length for 17mm pipe (1m)

Order Code: 41450

FIXINGS



Nail-in pipe clips for 16/17mm pipe
(100 pieces)

Order Code: 41500



Nail-in pipe clips for 12mm pipe
(100 pieces)

Order Code: 41490



Clout nails 25mm
(Approximately 400 pieces)

Order Code: 41501



Zip ties 200mm (100 pieces)

Order Code: 46750

DIFFUSER PLATES



1000mm x 390mm
double groove aluminium
spreader plate

Order Code: 44520



AMBIPLATE 30



590 x 1000mm
Triple groove aluminium
spreader plate

Order Code: 44525



AMBIPLATE 30



1000mm x 200mm
double groove aluminium
spreader plate

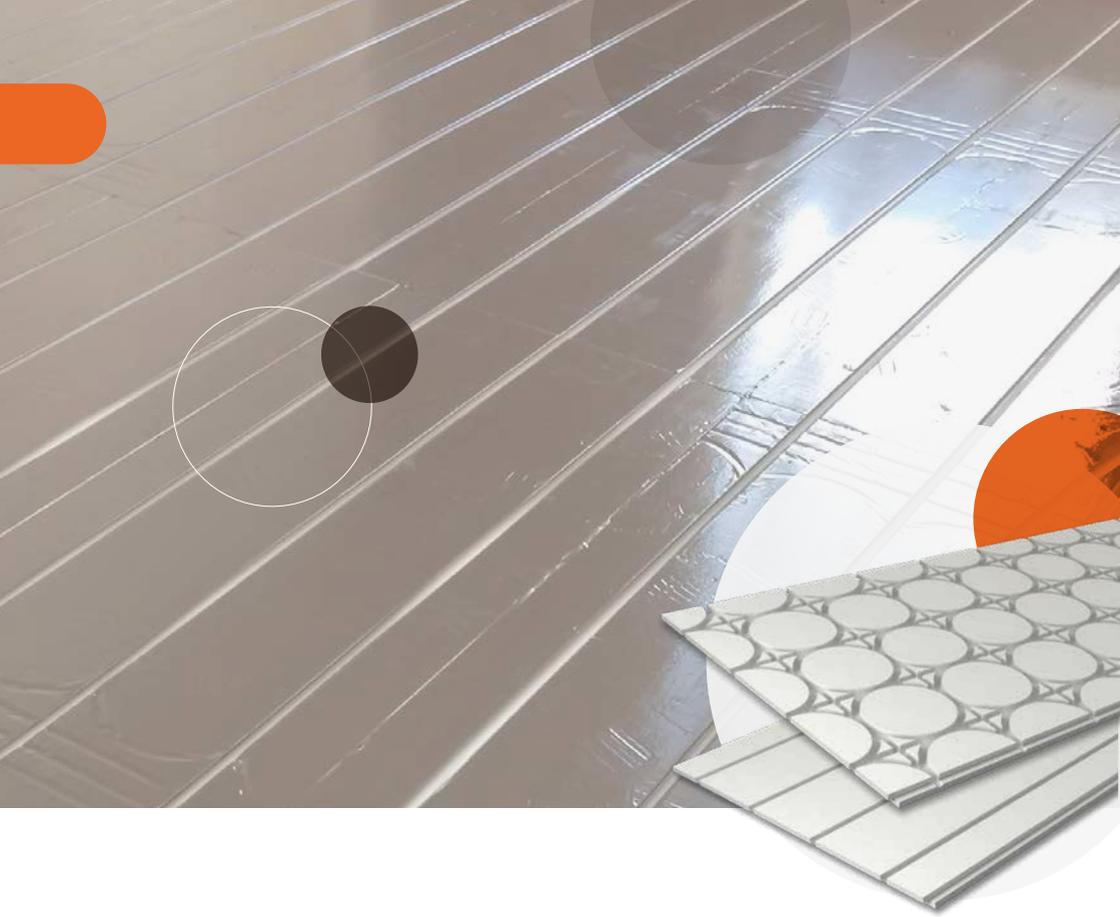
Order Code: 44600



AMBIPLATE 80

Other bespoke plates available on request.

For a quotation and technical support visit ambienteuffh.co.uk



BOARD PRODUCTS AND ACCESSORIES

We offer a range of 'board' products, consisting of pre-grooved panels, incorporating the underfloor heating pipework. The main use for these panels is in retro-fit or refurbishment scenarios, to maintain minimal floor build-up.



Our Accessories

Ambiente supplies other components that surround your UFH system - from adhesives and compounds, to insulation products.

BOARD PRODUCTS AND CASTELLATED PANELS



AmbiSolo self-adhesive panel 1.05 x 0.65m
(Covers 0.6m²)

Order Code: 46100



AMBI SOLO



Castellated panel plain 1.22m x 0.82m
(Overall height 20mm)

Order Code: 46320



AMBICASTELLATED

Castellated panel with 10mm EPS100 backing 1.4m x 0.8m
(Overall height 30mm)

Order Code: 46300

Castellated panel with 30mm EPS100 backing 1.4m x 0.8m
(Overall height 50mm)

Order Code: 46305

**LOW PROFILE SYSTEMS
(GROOVED FOR 12MM PIPE AT 150MM CENTRES)**

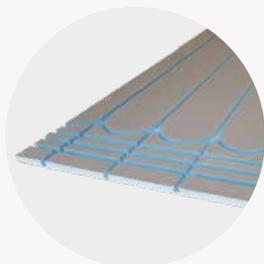


AmbiLowboard (EPS)
pre-grooved and foiled
EPS250 1.2 x 0.6m
(with returns) 18mm

Order Code: 46060



AMBILOWBOARD
EPS



AmbiDeck 18
(Cement-coated
XPS board. 1.2 x 0.6m
(with returns). 18mm thick

Order Code: 46160



AmbiDeck



AmbiLowboard (SRB)
SX18 straight panel
(pre-grooved cement
board with lap joint
1200 x 600 x 18mm)

Order Code: 46670



AMBILOWBOARD
SRB



AmbiLowboard (SRB)
RX18 return panel
(pre-grooved cement
board with lap joint
1200 x 600 x 18mm)

Order Code: 46672



AMBILOWBOARD
SRB

**PRE-GROOVED AND FOILED EPS INSULATION
(GROOVED FOR 17MM PIPE AT 200MM CENTRES)**



AmbiFloat 10 EPS100 1.2 x 1.2m
(with returns) 25mm

Order Code: 46000



AMBIFLOAT 10

AmbiFloat 10 EPS100
1.2 x 1.2m
(with returns) 50mm

Order Code: 46040



AmbiFloat 20 EPS100
1.2 x 0.35m
(with returns) 50mm
(For use between 50mm
joists at 400mm centres)

Order Code: 46044



AMBIFLOAT 20



AmbiChipboard
pre-grooved 22mm
T+G structural chipboard
2.4m x 0.6m
(with radius returns)

Order Code: 46685



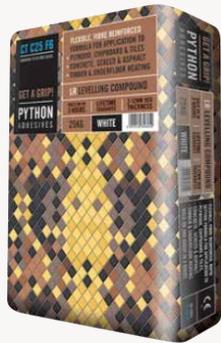
AMBICHIPBOARD

BOARD SYSTEMS ACCESSORIES



AmbiBond Polymer Adhesive SB200
(17kg - covers approx 15m²)

Order Code: 47100



Reinforced/Flexible
Levelling Latex
25Kg bag

Order Code: 47500



50m aluminium foil tape (for use with
AmbiFloat/AmbiLowboard products)

Order Code: 92004

BOARD SYSTEMS ACCESSORIES



AmbiLowboard (SRB) joint adhesive
(1ltr - allow one bottle per 25m²)

Order Code: 46665



AmbiLowboard (SRB) screws
(Allow one box per 50m²)

Order Code: 46667



AmbiDeck Washers (100pcs)
(Allow one bag per 15m²)

Order Code: 46195



AmbiDeck Screws 3.5x40mm (200pcs)
(Allow one box per 30m²)

Order Code: 46192



Border edge insulation
(150 x 8mm) 50m

Order Code: 41620

Border edge insulation (150 x 8mm)
50m with skirt for flowing screed

Order Code: 41640

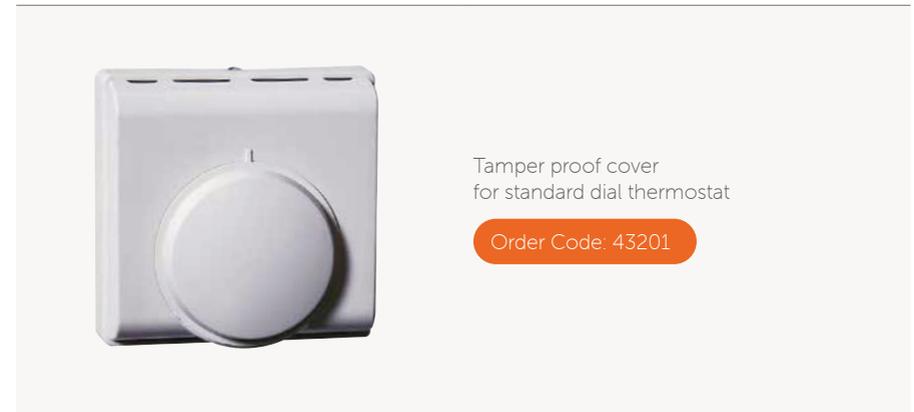


DIAL THERMOSTATS



Ambiente standard dial thermostat (230v)

Order Code: 43200



Tamper proof cover for standard dial thermostat

Order Code: 43201



Ambiente night set-back thermostat (230v)
(Includes temperature-limiting function)

Order Code: 43214

THERMOSTATS AND TIMELOCKS

One of the key parts of any underfloor heating system is often overlooked – that is the CONTROL of the system. Due to the behaviour of underfloor heating, in particular the slower response times, it requires more careful control than a traditional radiator system.

Listed in the following pages is an outline of the range that we offer, please make contact with our sales team to learn about the full range including other colour options.



Need expert advice?

We have a wealth of resources online to show you exactly how to programme your thermostat. Visit our website today to find out more.

PROGRAMMABLE DIGITAL THERMOSTATS



Ambiente LunaStat
(230v Digital / Programmable Thermostat)

Order Code: 43520



Ambiente PRT/E
programmable thermostat (230v)
(Can be used for both wet and electric UFH)

Order Code: 43500



Ambiente PRT/NE
programmable thermostat (12v)

Order Code: 43510



Slimline-RF wireless
programmable thermostat

Order Code: 43856



Touch programmable thermostat (230v)

Order Code: 43463

Touch-N programmable thermostat (12v)

Order Code: 43471

PROGRAMMABLE DIGITAL THERMOSTATS



Neostat programmable thermostat
230v (Smartphone control option
with this product)

Order Code: 42840

Neostat programmable thermostat
12v (Smartphone control option
with this product)

Order Code: 42842

Neostat-E programmable thermostat
(Electric UFH)

Order Code: 24860



NeoAir wireless thermostat
(Smartphone control options
with this product)

Order Code: 42880



NeoAir Stand
(An alternative to fixing
your NeoAir stat to the wall)

Order Code: 42890



Wifi Smart Stat (Integrated thermostat
and programmer, linking directly to Wifi
for smartphone control)

Order Code: 42880

TIMELOCKS, PROGRAMMERS & INTERNET CONTROL



TM1, 1 channel timeclock (230v)

Order Code: 43540

TM4-TS, 4 channel
touchscreen timeclock (230v)

Order Code: 43569

Neohub for use with Neostat
for heating control via a smartphone

Order Code: 42870

Programmable Digital Thermostats and Timeclocks. We can supply alternative colour variations for these items, most are available in white, black and silver. Please call our sales team for pricing details.

REMOTE SENSORS
(ALL SENSORS ARE COMPATIBLE WITH 43500 AND 43510)Sensor probe for use with floor
temperature sensing (3m)

Order Code: 43560



Thimble sensor, white

Order Code: 43640

Thimble sensor, aluminium

Order Code: 43660

Thimble sensor, stainless steel

Order Code: 43670



Button sensor, white

Order Code: 43672

Button sensor, stainless steel

Order Code: 43673

Button sensor
on single gang plate, white

Order Code: 43674

Conduit for use
with 43560 sensor probe (3m)

Order Code: 52670

WIRING CENTRES



UH4 - 4 zones wiring centre (230v)

Order Code: 43145



UH8 - 8 zones wiring centre (230v)

Order Code: 43161



UH8 - N zones wiring centre (12v)

Order Code: 41436



UH8-RF - 8 zones wireless wiring centre (230v)

Order Code: 43866



RF-switch 2-zone wireless receiver

Order Code: 43870

TOOLS



Tacker gun for use with 40-50mm staples

Order Code: 44000



Tacker gun for use with 60mm staples

Order Code: 44001



Pipe de-reeler for coils up to 500m

Order Code: 44100



Pipe de-reeler for 700m drum

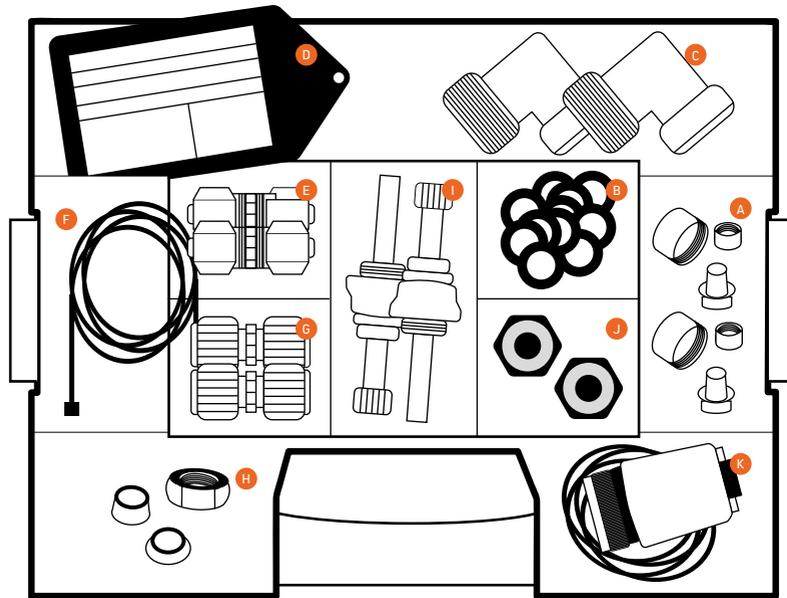
Order Code: 44110



Manifold spanner (double ended - 30 & 27mm)

Order Code: 44402

SPARES AND REPAIRS KIT



All of the common spare parts you need in one convenient location. One lost or missing part can have huge implications on a construction site, but with this valuable kit in your armoury there will be no more waiting for the parts to arrive! We recommend that you review your stock of spare parts on a regular basis, using the table and part codes to re-order as necessary.

KIT INCLUDES

A	Spare manifold couplings (size dependent on installer preference)	16mm - 42250 17mm - 42200
B	Fibre washers	30mm - 60164 24mm - 60165
C	90 Degree pumpset elbows	42125
D	Manifold tag and ziptie	46755
E	17mm Straight repair joiners	(Kit comprises 2 x 42300, 1 x 42100)
F	Grundfos pump lead	41414
G	12mm Straight repair joiners	Kit comprises 2 x 42189, 1 x 42105
H	15mm Copper manifold coupling	42197
I	Flow meter	42180
J	Manifold blanking cap	42189
K	Actuator valve	43016



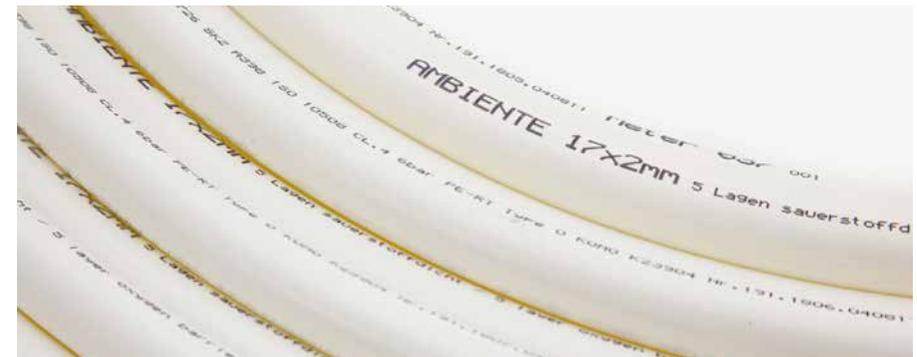
WARRANTIES

Our products are supplied with the following standard warranties:

Item	Warranty Period
Ambiente PE-RT Type 0, 5-layer Pipe	75 years
Ambiente PE-RT Type 1, 5-layer pipe	50 years
Ambiente MLCP 5-layer pipe	50 years
Ambiente Stainless Steel Manifold flow bar and return bar	50 years
All other parts for manifold (air vents, ball valves, flow meters)	2 years
Ambiente Controls	2 years
Ambiente Actuator Valves	3 years
Grundfos Pump and CircoMax Blending Valve	2 years

Public liability Insurance cover for Ambiente Systems UK is £5 million

Products liability insurance cover is £5 million





SCREEDS

Underfloor heating is often installed with a screed floor construction, so it is important to understand some basics about the different types of screed. Traditionally screed has always been a sand and cement mix, however, there is an increasing shift towards flowing screeds.

Flowing screeds have the following advantages:

- + Can be poured thinner than a standard screed
- + Dries quicker
- + Easier and quicker to lay

One of the key considerations before laying a flowing screed is to ensure that the area is suitably tanked, to avoid the screed flowing into unwanted areas. Ambiente recommends the use of a border edge insulation with a plastic 'skirt', to avoid screed flowing between the floor insulation and the border edge foam.



Typical screed pump

ACOUSTICS

Acoustic and soundproofing solutions can take many different forms, although those that are designed to be used within a floor construction are typically a sheet material made from foam or rubber.

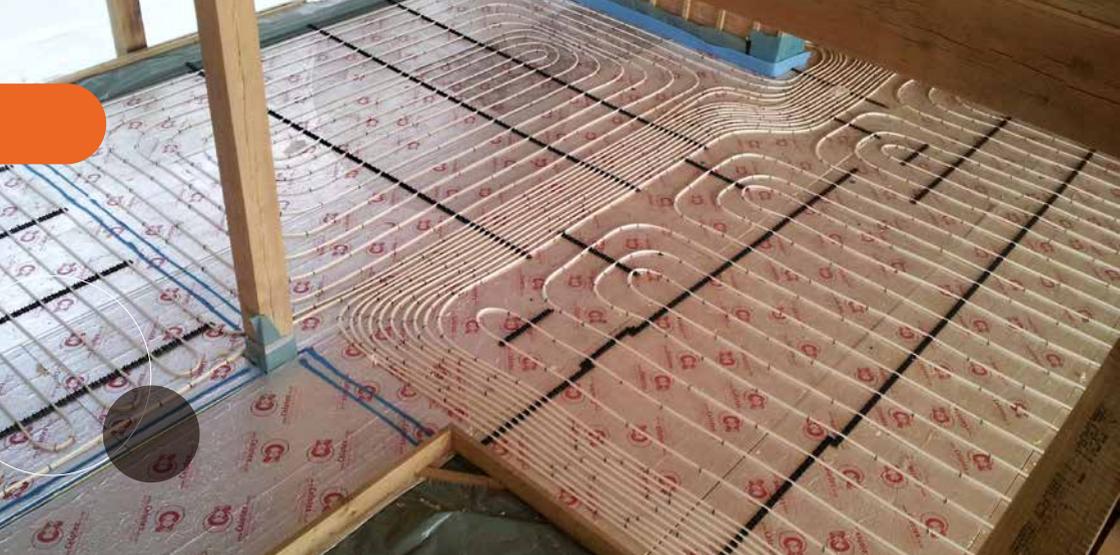
There are two main types of noise protection, airborne noise which can be music, voice and TV or impact noise which can be footsteps or heavy items being dropped on the floor.

Acoustic products will often focus on either airborne or impact noise, however, there are some that can deal with both. Most acoustic floor solutions are suitable for all types of floors and can be installed in new build or renovation scenarios.

Ambiente Underfloor Heating systems have been installed and tested with many different acoustic products including rubber, foam and fleece products. **We can offer advice on the most suitable acoustic layer for use in conjunction with wet underfloor heating systems.**



Rubber acoustic matting



INSULATION

There are many types of insulation used in conjunction with underfloor heating. Here we have summarised the main types:

- + **EPS, or Expanded Polystyrene Insulation**, is a cost-effective and popular underfloor heating insulation. Typically having the appearance of a white plastic foam, EPS is manufactured by expanding a polystyrene polymer.
- + **XPS, or Extruded Polystyrene**, typically has a better insulation performance than EPS and is more durable. XPS is a closed cell rigid foam insulation, and is often produced with a coloured dye such as yellow or red. Due to a more complex manufacturing process, it is more expensive than EPS.
- + **Rigid PUR and PIR boards** are commonly used in ground floor applications, as part of a new-build screed floor build-up and can be used under our screeded systems. Highly effective, lightweight, excellent thermal conductivity and have the ability to bond to most materials.
- + **Mineral Wool** is normally used for insulating joist voids due to its flexibility and works well with our AmbiPlate range of systems. The material is porous and traps the air, making it a fantastic thermal insulator and it often has acoustic abilities too. This insulation is also incombustible and doesn't fuel or propagate flames.
- + **Foil insulation** can be used when height restriction is an issue. This product consists of a series of layers of foil and plastic which gives a surprisingly high insulation value. Ideal in refurbishment projects where floor build-up height must be kept to a minimum.

CEMENT BOARD

Ambiente supplies a range of cement board products for use over Underfloor Heating systems. Cement boards have a number of advantages over chipboard / plywood, as follows:

- + Lower thermal resistance means better heat output and spread of heat
- + More consistent and solid layer onto which floor finishes can be laid
- + Cement boards have negligible expansion rate compared to wood products

Cement boards can be used over floating, low-profile and joisted UFH systems.



Did you know?

Using cement-based boards over underfloor heating rather than chipboard or plywood, can increase heat output by up to 30%.

Make sure you notify us if you are using cement boards, so that we can incorporate this into our design works.



WENTWORTH ESTATE
WESTBOURN

+ CASE STUDY

Westbourn stands in beautiful mature grounds of about 3.77 acres in a prestigious part of the internationally renowned Wentworth Estate and is constructed from a mellow Bath stone in the classic Georgian tradition.

The property is a newly constructed mansion of approx. 20,580sq ft gross internal area plus a 1,000sq ft roof terrace and standing in beautiful landscaped grounds. Ambiente were proud to supply our Underfloor Heating into this prestigious residence – all floors, including the car garage, are heated with our AmbiClip system – consisting of Ambiente UFH pipework clipped to the insulation layer and then screeded over.



IVORY HOUSE
ESSENDON

+ CASE STUDY

Affectionately known as 'Little Elephant' due to the shape of its floor plan, this beautiful home with Georgian Farmhouse features is set in approximately 1.7 acres of mature landscaped grounds.

Ivory House is set in a semi-rural setting yet ideally located for Essendon Village, one of the area's most desirable locations in Hertfordshire. Ambiente Underfloor heating is installed throughout all floors, consisting of our AmbiClip system – pipes clipped to the insulation layer, prior to the new floor screed being laid. The system is controlled by the Ambiente Neo thermostat system, allowing the user to control their heating system both locally at the thermostat and also from their smartphone, wherever they are!



+ CASE STUDY

SCIMITAR HOUSE
ROMFORD

This project consisted of the conversion of a former commercial building comprising office space in the heart of Romford into 77 quality residential apartments, spread across 4 floors providing a selection of studio, one and two bed units and a 24 hour concierge facility.

The underfloor heating was incorporated above the existing pre-cast concrete slab, within the new 65mm sand and cement screed layer over 25mm thermal insulation to each floor, with the AmbiClip system selected as the best option for ease of installation and consistent pipework layout.



+ CASE STUDY

MANFORD WAY
CHIGWELL

This project consisted of two new-build blocks of residential apartments in Chigwell, Essex – with underfloor heating installed throughout all units.

Due to the construction method, a 'floating' Underfloor Heating system was identified as the best solution. The AmbiFloat 10 system was installed throughout all units, which consists of a grooved and foil-faced insulation board with pipework laid into the grooves. The system was then over-laid with a structural flooring board, to accept the floor finishes on top of this. The system is controlled by Ambiente DS-SB set-back dial thermostats. These thermostats are an easy to use dial thermostat, while also incorporating a night set-back function.

HAROLD HILL LIBRARY



+ CASE STUDY

HAROLD HILL LIBRARY ROMFORD

Harold Hill Library has recently been significantly refurbished and upgraded, offering residents the latest contemporary facilities.

The new state-of-the-art building opened in September 2016 - added features include 19 new public access PCs and a meeting room available for hire with seating for approximately 50 people with a smart TV. Our AmbiClip system was selected for this project, with the pipework stapled onto the insulation layer, and then the screed laid on top of this. The clip rails allowed the installer to accurately achieve consistent pipe spacing, especially through the large open library area.



+ CASE STUDY

HOME OF COMPASSION SURREY

Home of Compassion is a prestigious and luxurious care home, set in delightful surroundings in the heart of Thames Ditton.

The impressive Grade II mansion has been recently restored and extended to create an extremely comfortable up-to-the-minute care home that sets new standards for care. With fabulous views across the river Thames to Hampton Court and facilities to rival those of a top hotel, Home of Compassion enables residents to live a life tailored to their preferences. Ambiente was proud to be selected to design and supply the Underfloor Heating system for this project, comprising of a screed floor construction to all areas. Underfloor heating was the natural choice providing the aged residents with a comfortable and safe form of heating.



SUSTAINABILITY AT **AMBIENTE**

At Ambiente we are very conscious of the need to protect the environment in which we work and we take every possible measure to reduce our impact and to give a lead in the shift to greener technologies.

We are also committed to helping our customers in the drive to reduce energy – not only are our systems efficient and environmentally friendly, but they can also be coupled with renewable energy sources such as air and ground source heat pumps and solar thermal systems.



CONTACT **AMBIENTE**

Ambiente goes beyond just simply the supply of underfloor heating systems.

At every stage in the project, we offer advice to all parties, in order to assist in the swift, safe and supportive implementation of your project. For more information on any of our products or to discover more about UFH get in touch today.

telephone **01707 649 118**
email **info@ambienteufh.co.uk**
visit **www.ambienteufh.co.uk**



DELIVERY RATES 2019-20

FOR AMBIENTE CUSTOMERS

Ambiente offers a flexible and reliable delivery service throughout the UK for both parcels and pallets. Standard service is next-day delivery, with options of pre-12.00 and pre-10.30 at an extra cost.

We are committed to getting your goods to you on-time, every time, as we appreciate the potential implications of delays on your project.

With large stocks and a focused and dedicated despatch team, we are confident we can deliver to your expectations.

PALLET SERVICE

ENGLAND & WALES

Full pallet	£60
Half pallet	£50
Quarter pallet	£45

SCOTLAND

Full pallet (postcode dependent)	£60-100
Half pallet (postcode dependent)	£50-80
Quarter pallet (postcode dependent)	£45-70

PARCELS SERVICE

UK NEXT DAY DELIVERY

Standard 24hr Service	£10.50
Next Working Day by Noon	£16.50
Next Working Day by 10.30am	£20.00
Next Working Day by 9am	£62.50
Saturday AM Delivery	£32.50
Northern Ireland Next Day	£20.00

Please note: trade discount rates do NOT apply to these delivery rates.

ambiente®

Ambiente Heritage House, 1 Woodside Lane, Bell Bar, Hertfordshire AL9 6DE
call 01707 649 118 email info@ambienteufh.co.uk www.ambienteufh.co.uk