

The Panel That Insulates & Dissipates.

Heat transfer overlay panels for waterbased underfloor heating systems

AQUALAY : Overview

AQUALAY is a high performance pipe carrier panel designed for use with water based underfloor heating systems. AQUALAY panels are produced with pre-set pipe channels set *100mm, and 150mm centres and comprise of 3 different panel options; Aqualay Master Panel, Aqualay Universal Panel and Aqualay Multiflow Panel. Each panel offers uniquely designed benefits that make Aqualay a superlative system for underfloor heating.

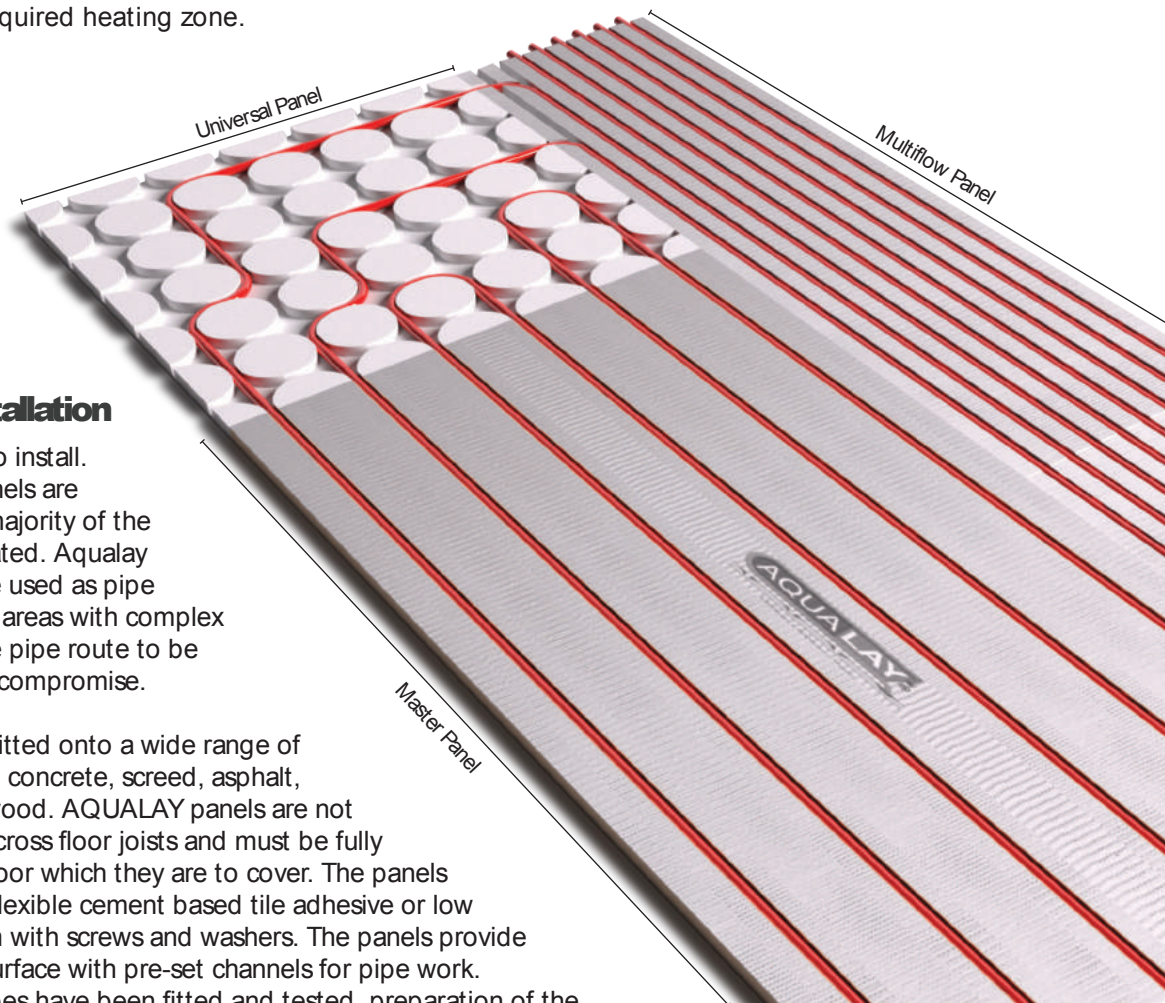
AQUALAY overlay panels are designed to provide a durable overlay pipe routing system for use with low pressure water heating and cooling systems. Aqualay provides benefits such as insulation against downward heat loss, heat transfer across pipework centres, improves warm up time to floor finishes and provides controlled spacing for pipework. Aqualay is available with pipe channel centres set at *100mm for 12mm diameter pipe and with 150mm centres for pipe diameters of 10mm, 12mm, 15mm and 16mm.

AQUALAY System

Aqualay Master Panels are manufactured using high density extruded XPS as its core element finished with a hard wearing cementitious surface. Running through the body of each Master Panel is a series of highly effective heat transfer cores, manufactured from a unique conducting cement compound designed to transfer heat from the water pipes to the panel surface. The patented Master Panel is unique in structure, providing insulation against downward heat loss whilst at the same time effectively transferring heat from the water pipe to the floor surface.

Aqualay Universal Panels are manufactured using a lightweight polycement based compound as its core element. These panels provide installers and designers total flexibility for complex pipe route layouts. Aqualay Universal Panels effectively transfer heat across the floor surface, however they don't offer the same level of insulation as the Aqualay Master Panel.

Aqualay Multiflow Panels are manufactured using high density polystyrene with cement reinforced surfaces. The eight channels of the Multiflow are designed to retain heat within the water pipe ensuring heated water is directed efficiently to the required heating zone.

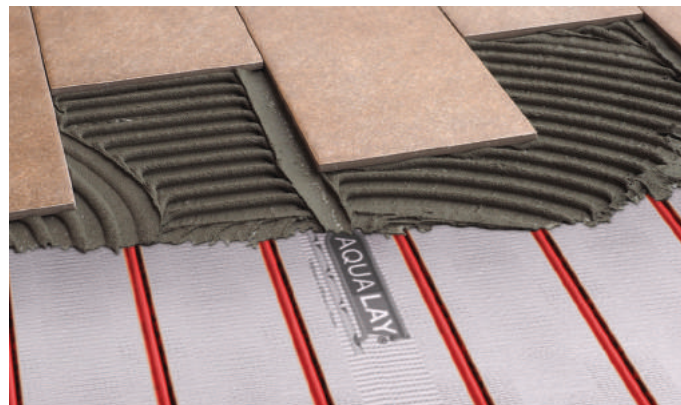


AQUALAY Installation

AQUALAY is easy to install. Aqualay Master Panels are used to cover the majority of the floor area to be heated. Aqualay Universal Panels are used as pipe return ends and for areas with complex layouts allowing the pipe route to be positioned without compromise.

The panels can be fitted onto a wide range of substrates including concrete, screed, asphalt, chipboard and plywood. AQUALAY panels are not designed to span across floor joists and must be fully supported by the floor which they are to cover. The panels can be fixed using flexible cement based tile adhesive or low expansion PU Foam with screws and washers. The panels provide an insulated floor surface with pre-set channels for pipe work. When the water pipes have been fitted and tested, preparation of the Aqualay surface for the final floor finishes can begin.

Aqualay panels can be covered with many different types of floor finishes including Tiles, Engineered wood, Laminate flooring, Carpet and Vinyl. Surface preparation of the Aqualay must be considered for the different types of floor finishes.



AQUALAY

Surface preparation for application of:

Tiles:

For domestic applications, if the floor is flat and level, tiles can be applied direct to the Aqualay Panels, however, we do recommend filling all unused channels in the Aqualay panels with tile adhesive prior to fixing tiles. For heavy traffic areas and commercial projects subject to heavy loads, we recommend applying Aqualay ProTek levelling compound at a minimum 5mm thick, prior to fixing tiles. Tiles can be fixed using a good quality cement based flexible tile adhesive.

N.B When choosing tiles for your floor it is important to consider point loading. Applying larger tiles improves resistance to concentrated loads. For areas that may be subject to concentrated loads over 0.21 N/mm² advice should be sought to determine suitability. All tiles must be fixed using a solid bed of adhesive ensuring no voids remain under the tiles. Tiles should be fixed using good proprietary flexible cement based tile adhesive. Solvent based or ready mixed adhesives MUST NOT be used. The chart below shows resistance to concentrated loads based on a 1mm deflection over a range of standard tile sizes.

Indicative tile size examples	300mm x 200mm	150mm x 150mm	100mm x 100mm	50mm x 50mm
Load resistance over tile surface	1260kg	472kg	210kg	52.5kg

Engineered wood & laminate flooring:

Fill all unused channels with a good quality cement based Tile adhesive, leaving a smooth flat surface. Lay the Engineered wood/Laminate over the Aqualay fitting a thin layer of soft foam underlay beneath the engineered wood.

For Commercial Projects that are subject to heavy loads, we recommend applying a minimum 5mm layer of Aqualay ProTek levelling compound over the Aqualay Panels prior to fitting engineered wood and laminate flooring.

Carpet/ Vinyl:

Apply a minimum 10mm layer of Aqualay ProTek levelling compound over the entire surface of the Aqualay panels prior to fitting Carpet or Vinyl flooring.

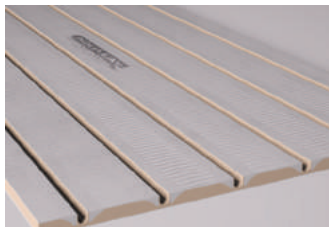
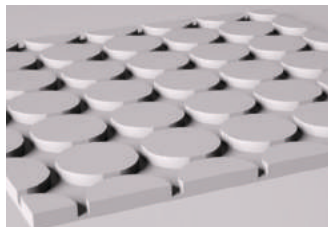
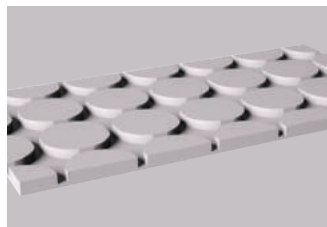
N.B Overlay panels that provide adequate heat transfer and impact resistance to protect the Aqualay panels may be used instead of Aqualay ProTek levelling compound.



AQUALAY

Overlay panels consist of :

1. Aqualay Master Panel – 4 channel set at 150mm centres and 6 channel set at *100mm centres.
2. Aqualay Universal Panels (Midi & Mini) – 4 channel set at 150mm centres and 6 channel set at *100mm centres.
3. Multiflow Panel – 8 channel Insulating panel for multiple heating zones.

**Master Panel****Universal Panel (Midi)****Universal Panel (Mini)****Multiflow Panel**

AQUALAY Master Panel

Low floor build up:

Ideal for use in buildings where floor build must be kept to a minimum.

Speedy installation time:

Panels can be installed and floor finishes applied in the same day.

Versatile:

Universal panels provide unrestricted pipe routing options.

Insulating:

Insulation against downward heat loss.

Energy efficient:

Excellent warm up times providing effective controllability of room heating system.

Effective heat transfer:

Specially formulated heat transfer profile for heat spread across surface finishes.

Floor finishes:

Surface suitable for tiles and engineered wood. Minimum 10mm screed must be applied for carpet and vinyl.

Easy installation:

Fixed using standard construction tools.

Waterproof:

Robust panels can be installed in open buildings.

Sound reduction:

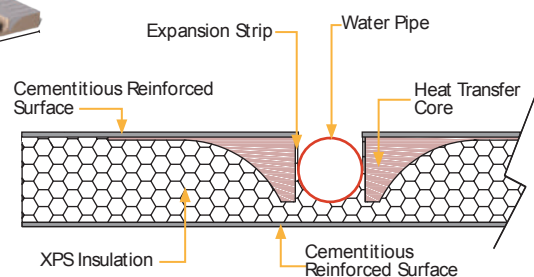
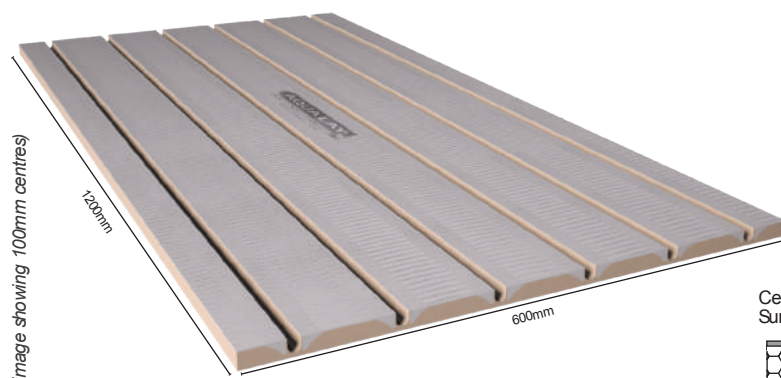
Reduces impact sound transfer through sub floor.

AQUALAY Technical Data

Panel Thickness	15mm, 18mm, 21mm
Pipe Centre's	*100mm & 150mm
Pipe Channel Depth	10mm, 12mm, 15mm, 16mm
Compressive Strength	300 kPa
Thermal Conductivity (Master Panel & Multiflow Panel)	0.033 W/m2K
Fire Performance	Euro class E- EN 13501-1

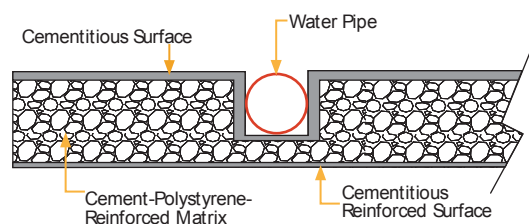
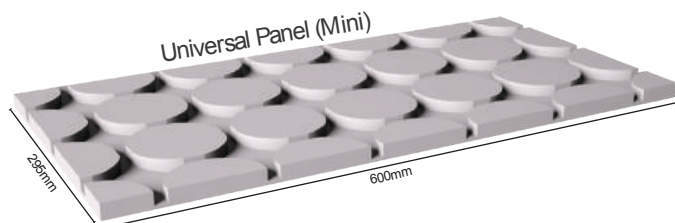
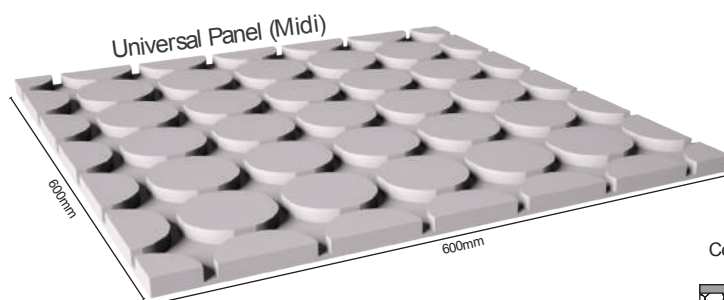
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Master Panel

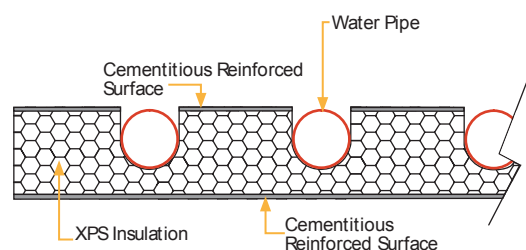
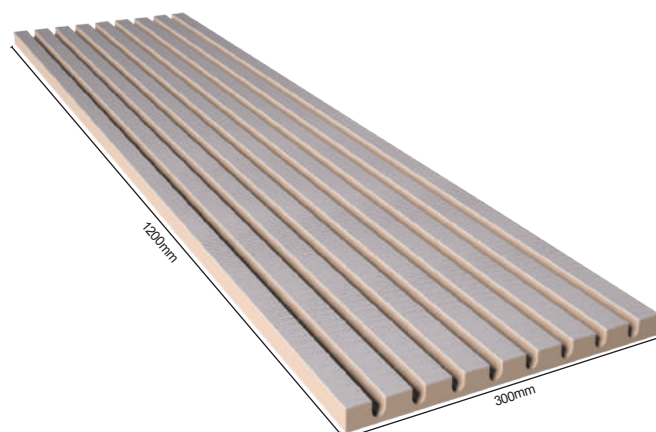


Universal Panels

(image showing 100mm centres)



Multiflow Panel



AQUALAY Product Sizes & Information

Aqualay - Master Panels

Product Code	Panel Thickness	Panel Size	Weight (kg)	Pipe Diameter (mm)	Pipe Centres (mm)
AQMP010	15mm/4 Channel	1200mm x 600mm	4.7	10	150
*AQMP020	18mm/6 Channel	1200mm x 600mm	5.3	12	100
AQMP030	18mm/4 Channel	1200mm x 600mm	5.6	12	150
AQMP040	21mm/4 Channel	1200mm x 600mm	6.7	15 & 16	150

Aqualay - Universal Panels (Mini)

Product Code	Panel Thickness	Panel Size	Weight (kg)	Pipe Diameter (mm)	Pipe Centres (mm)
AQUP050	15mm/4 Channel	295mm x 600mm	2.0	10	150
*AQUP060	18mm/6 Channel	295mm x 600mm	2.2	12	100
AQUP070	18mm/4 Channel	295mm x 600mm	2.3	12	150
AQUP080	21mm/4 Channel	295mm x 600mm	2.5	15 & 16	150

Aqualay - Universal Panels (Midi)

Product Code	Panel Thickness	Panel Size	Weight (kg)	Pipe Diameter (mm)	Pipe Centres (mm)
AQUP090	15mm/4 Channel	600mm x 600mm	4.0	10	150
*AQUP100	18mm/6 Channel	600mm x 600mm	4.4	12	100
AQUP110	18mm/4 Channel	600mm x 600mm	4.5	12	150
AQUP120	21mm/4 Channel	600mm x 600mm	4.9	15 & 16	150

Aqualay - Multiflow Panels

Product Code	Panel Thickness	Panel Size	Weight (kg)	Pipe Diameter (mm)	Pipe Centres (mm)
AQMF130	15mm/8 Channel	1200mm x 300mm	1.5	10	35
AQMF140	18mm/8 Channel	1200mm x 300mm	1.5	12	35
AQMF150	21mm/8 Channel	1200mm x 300mm	1.5	15 & 16	35

*Aqualay Panels with 100mm centres are designed for use with 12mm diameter pipe only.

AQUALAY Fixing Materials

Product Code	Weight	Description
AQFS	20kg	ProTek Self Levelling Compound
AQP1	8mm x 100mm x 50m	Perimeter Insulation
K0130	n/a	35mm Galvanised Fixing Washers (pack 100)



Galvanised Fixing Washers



Perimeter Insulation





The Panel That Insulates & Dissipates.

Please contact head office for more information:

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