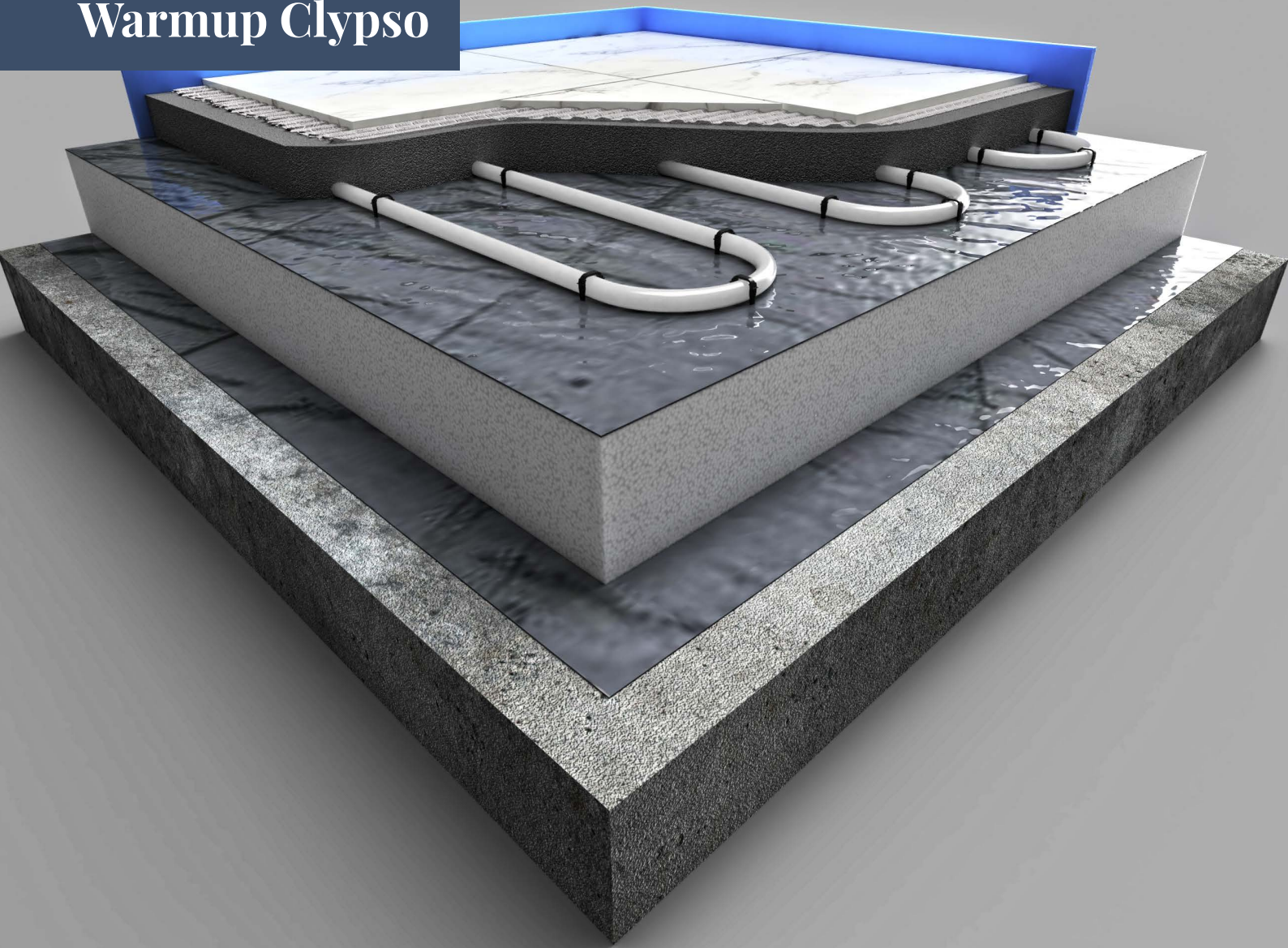


Warmup Clypso



For a Variety of Floor Finishes

The Clypso system can be installed with almost any floor finish and in particular where the flooring may be replaced from time to time.

Ideal For New Builds

A quick and simple installation into a new screed floor with no impact on finished floor heights.

Flexible Pipe Placement

The Clypso system suits irregular shaped rooms with curved walls, nooks and obstacles handled with ease.

Performs Better with Liquid Screeds

Heat outputs can be increased and water temperatures reduced by using thinner, more conductive, screeds.

SAFETY Net[™]
Installation-Guarantee



Overview

The Warmup Clypso System is designed for use within floating screeded floors. Clypso can be installed under either 65 - 75 mm sand and cement screed or proprietary screeds down to 35 mm thick.

The system comprises of 16 mm PE-RT pipe that is held in place by Warmup clips secured to the insulation layer below.

A gridded membrane is available from Warmup to make quick and accurate fixing easier to achieve.

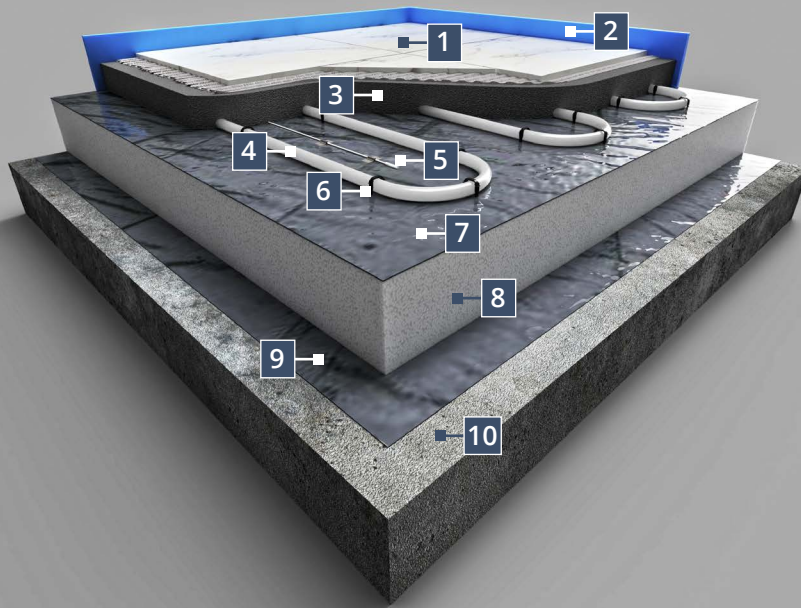
Warmup clips are available in two lengths, 40 & 60 mm. The 60 mm clip offers greater fixing strength while the 40 mm clip only requires a 25 mm layer of insulation making them well suited for intermediate floors.

The Warmup Clypso System is suitable for almost any floor finish and in particular where the flooring may be replaced from time to time.

Warmup

Typical Floor Build-Up

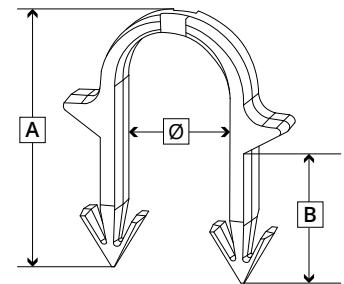
Recommended Subfloor - All Floor Finishes



- | | |
|----|--|
| 1 | Floor Finish |
| 2 | Perimeter Strip <i>To allow for differential movement between finished floor level and walls</i> |
| 3 | Screed Layer |
| 4 | Warmup PE-RT Pipe |
| 5 | Floor Sensor <i>Tab tape the sensor to the subfloor. Do not tape over the sensor tip!</i> |
| 6 | Warmup Clips |
| 7 | Vapour Control Layer (VCL) <i>To prevent water ingress</i> |
| 8 | Insulation Layer |
| 9 | Damp Proof Membrane (DPM) <i>To prevent water ingress</i> |
| 10 | Concrete subfloor |

Technical Specification

| Warmup Clips | | | | |
|--------------|---------------------|--------|--------|-------------|
| Code | Composition | A (mm) | B (mm) | Max. Ø (mm) |
| WHS-CL-T40 | Polypropylene clips | 40 | 20 | 20 |
| WHS-CL-T60 | | 57 | 37 | 20 |



| Typical Screed Types and Minimum Thickness over Clypso | | |
|--|------------------------|------------------|
| Screed Type | Minimum thickness (mm) | Standard |
| Traditional cementitious sand/cement | 70 (65) | BS 8204-1 |
| Traditional calcium sulfate | 40 | CIRIA Report 184 |
| Pumpable self-smoothing calcium sulfate | 40 (35) | BS 8204-7 |
| Pumpable self-smoothing cementitious | 40 (35) | BS 8204-7 |

i The table above shows different screed materials used and minimum thicknesses required for use with underfloor heating systems. **Domestic measurements are in brackets.** This table is for guidance only, screed layers used over Warmup Clypso must be chosen and installed in line with the latest edition of building regulations and standards.

System Performance

| k _H Value - W/m ² K | | | | | | | | | | | | | |
|---|------|------|------|------|------|------|------|------|------|------|------|------|------|
| Resistance of Floor Covering, tog | 0.00 | 0.25 | 0.50 | 0.75 | 1.00 | 1.25 | 1.50 | 1.75 | 2.00 | 2.25 | 2.50 | 2.75 | 3.00 |

| Pipe Centres | Warmup Clypso - 65 mm Sand and Cement Screed, Thermal Conductivity λ = 1.20 W/m.K | | | | | | | | | | | | |
|--------------|---|------|------|------|------|------|------|------|------|------|------|------|------|
| | 100 mm | 6.26 | 5.32 | 4.63 | 4.10 | 3.68 | 3.34 | 3.06 | 2.82 | 2.62 | 2.44 | 2.29 | 2.15 |
| 150 mm | 5.41 | 4.66 | 4.10 | 3.67 | 3.32 | 3.03 | 2.80 | 2.59 | 2.42 | 2.27 | 2.13 | 2.01 | 1.91 |
| 200 mm | 4.69 | 4.09 | 3.64 | 3.29 | 3.00 | 2.76 | 2.56 | 2.39 | 2.24 | 2.10 | 1.99 | 1.88 | 1.79 |
| 250 mm | 4.07 | 3.60 | 3.24 | 2.95 | 2.72 | 2.52 | 2.35 | 2.20 | 2.07 | 1.96 | 1.85 | 1.76 | 1.68 |
| 300 mm | 3.55 | 3.18 | 2.89 | 2.66 | 2.46 | 2.30 | 2.15 | 2.03 | 1.92 | 1.82 | 1.73 | 1.65 | 1.58 |

| | |
|---|--|
| q = Specific Heat Output, W/m ² | k _H = System Performance Factor, W/m ² K |
| T _{water} = Mean water Temperature | T _{air} = Room Air Temperature |

Using the system k_H value to calculate the system heat output:

$$q = k_H \times (T_{\text{water}} - T_{\text{air}})$$

Example:

The heat output through an 18 mm thick, ≈ 1.25 tog timber floor, over Warmup Clypso, fitted with pipe at 200 mm centres, in a 21 °C room heated with 40 °C water is;

$$q = 2.76 \times (40 - 21) = 2.76 \times 19 = 52.44 \text{ W/m}^2$$

Alternatively, using the system k_H value to calculate the required water temperature, knowing the required heat output:

$$T_{\text{water}} = (q / k_H) + T_{\text{air}}$$

Example:

The water temperature required to produce a heat output of 55 W/m², through a 3 mm thick ≈ 0.25 tog LVT floor finish, over Warmup Clypso, fitted with pipe at 200 mm centres, in a 22 °C room is;

$$T_{\text{water}} = (55 / 4.09) + 22 = 13 + 22 = 35 \text{ °C}$$

Components



PE-RT Pipe - WHS-P-PERT-xx

Warmup PE-RT (Polyethylene of Raised Temperature Resistance) pipe. The pipe guarantees leak free performance with a smooth internal structure for improved flow, reduced pressure loss and deposit formation.



Warmup 6iE - 6iE-01-OB-DC / 6iE-01-BP-LC

The world's first UFH thermostat with a smartphone touchscreen providing effortless control at your fingertips. Connected to the internet by WiFi, it can be controlled from a smart phone, tablet or computer as well as its own touchscreen interface. Working automatically; it learns your routines and location through background communication with your smartphone. Using this knowledge it suggests ways to save energy.



Warmup Element - RSW-01-WH-RG (ELM-01-WH-RG) / RSW-01-OB-DC (ELM-01-OB-DC)

Warmup's Element WiFi Thermostat has been designed with simplicity and stylish functionality in mind. It brings energy-efficient heating control to all Warmup floor heaters. Combining smart technology with simple, contemporary design, the Element WiFi Thermostat is the perfect all-rounder to control Warmup heating systems.



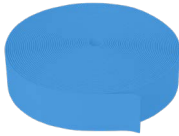
Warmup Clips - WHS-CL-T40 / WHS-CL-T60

The clips are used to securely hold the heating pipe in place on the insulation layer below. This ensures minimal movement and maintains the intended pipe spacing once the screed layer is applied on top of the system.



Pipe bend supports - WHS-P-BEND

The bend support is used for supporting pipes to make a smooth 90-degree turn where needed & provides a rigid bend which changes the pipes direction without causing excessive bending



Warmup perimeter strip - WHS-X-EDGE50

High quality foam perimeter strip, to allow for differential movement between finished floor level and walls when layer the screed over the Clypso system.



Pipe Conduit - WHS-CL_CONDUIT

A standard flexible conduit used to cross expansion joints and insulate flow and return pipework, reducing its heat output as it passes through other rooms.

Contact

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