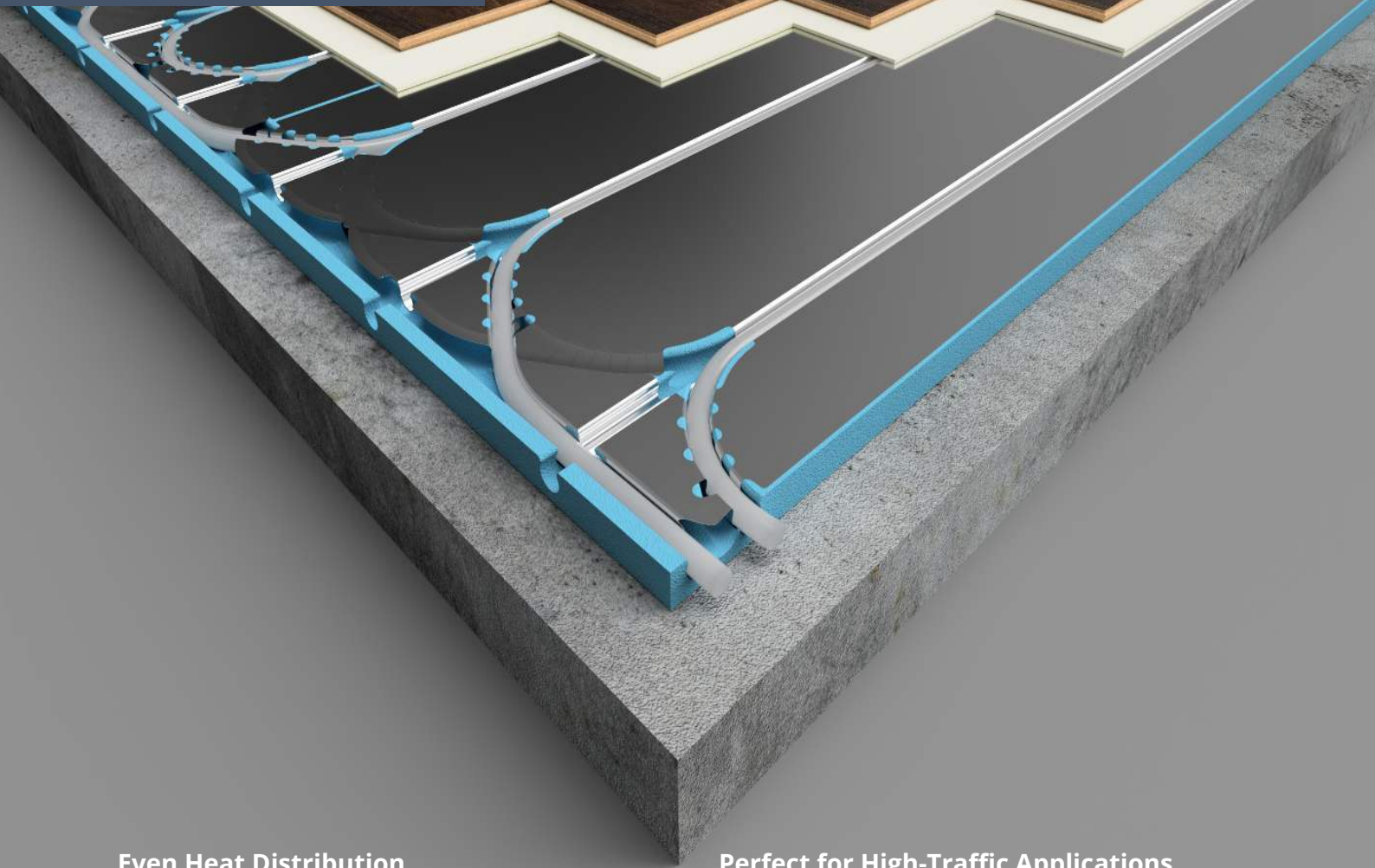


Lo-16 Low Build System



Even Heat Distribution

Provides a high heat output through its continuous, 200µm thick aluminium diffuser

Lower Floor Heights

Warmup Lo-16's 25mm panels will have little impact on floor levels

Perfect for High-Traffic Applications

Features in-built XPS insulation with a high compressive strength (500kPa) - making it perfect for use under high load traffic areas

Innovative Panels for Rapid Installation

Innovative panels which are easy to snap/cut and therefore quick to modify and install

SAFETYNet™
Installation-Guarantee



Overview

With its low-profile design and screedless installation method, Warmup Lo-16 is a fantastic water floor heating system to specify for projects of all scales. It offers a more superior heating performance than comparable models on the market.

Lo-16's moisture resistant panels incorporate XPS insulation with a high compressive strength of 500kPa – making this system perfect for use under high load traffic areas.

The system also features a 200µm thick, continuous aluminium diffuser for an even heat spread and high heat output.

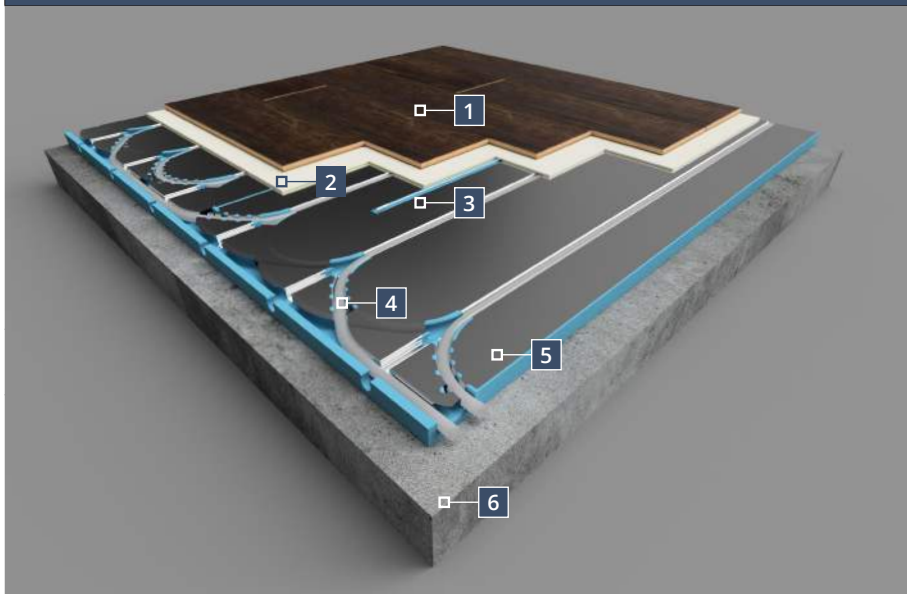
Additionally, by utilising Warmup's 16mm PE-RT heating pipe, Lo-16 also enables larger floor heating circuits - reducing the manifold size and overall system cost - whilst its 200mm centres enables the heating pipe to be installed without exceeding the minimum bending radius (which can result in the voiding of the warranty).

Warmup Lo-16's energy-efficient, low-carbon technology will offer low long-term running costs for the end-user and it can be used with both boilers and heat pumps.

Warmup

Typical floor build-ups

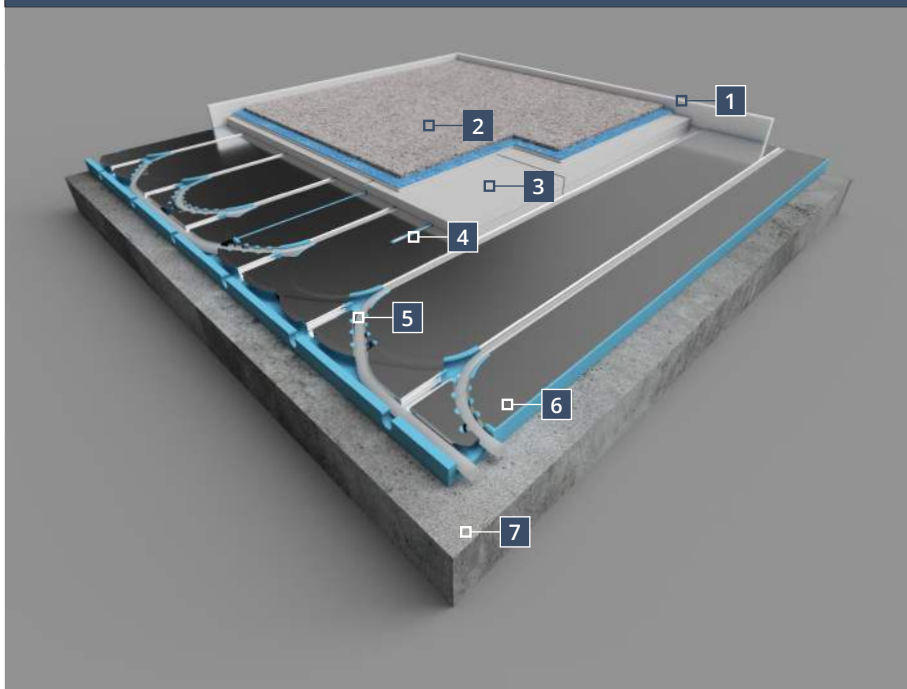
Floating floor finishes



- | | |
|---|---|
| 1 | Floating floor finish |
| 2 | UFH compatible underlay |
| 3 | Floor sensor
<i>Must be recessed into the Lo-16 panel and taped in position.</i> |
| 4 | Warmup 16 mm PE-RT pipe |
| 5 | Universal Heating Panel * |
| 6 | Subfloor with a Surface Regularity of SR1 |

* Lo-16 panels can also be adhered to the subfloor to improve stability

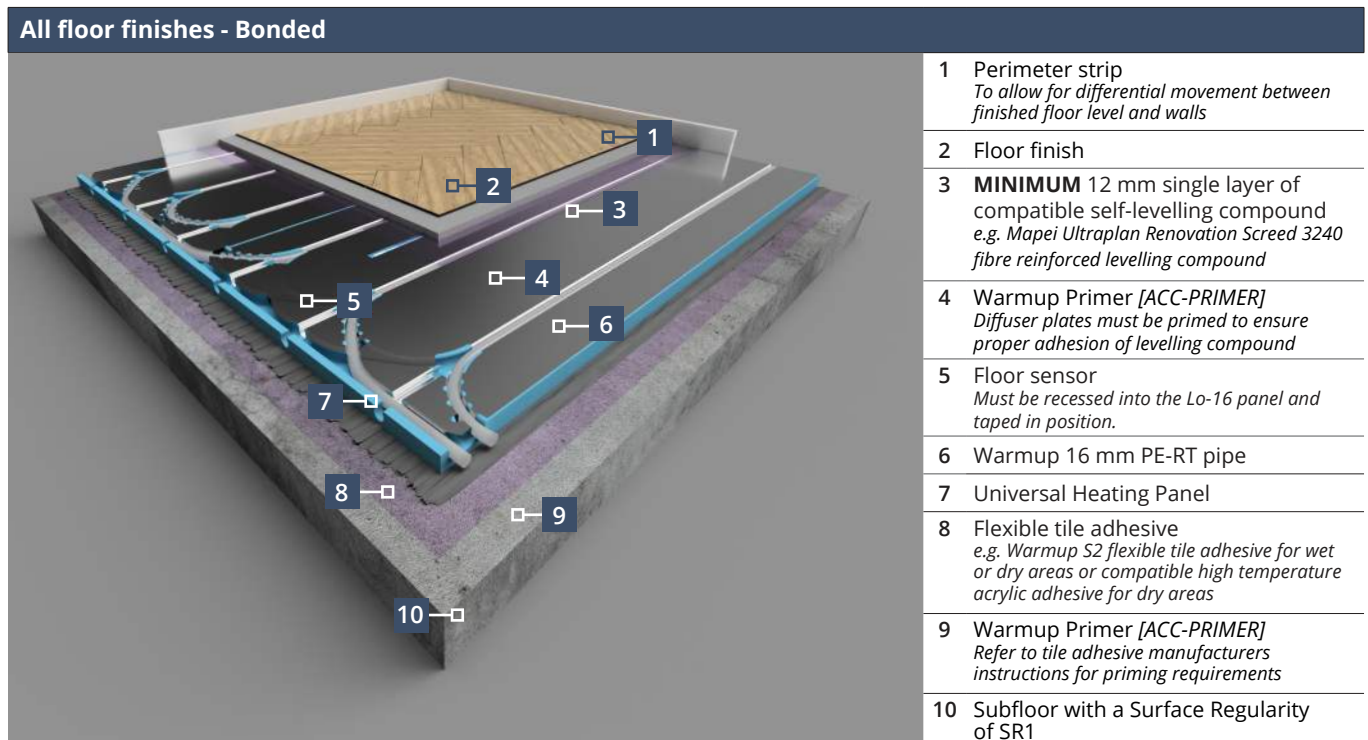
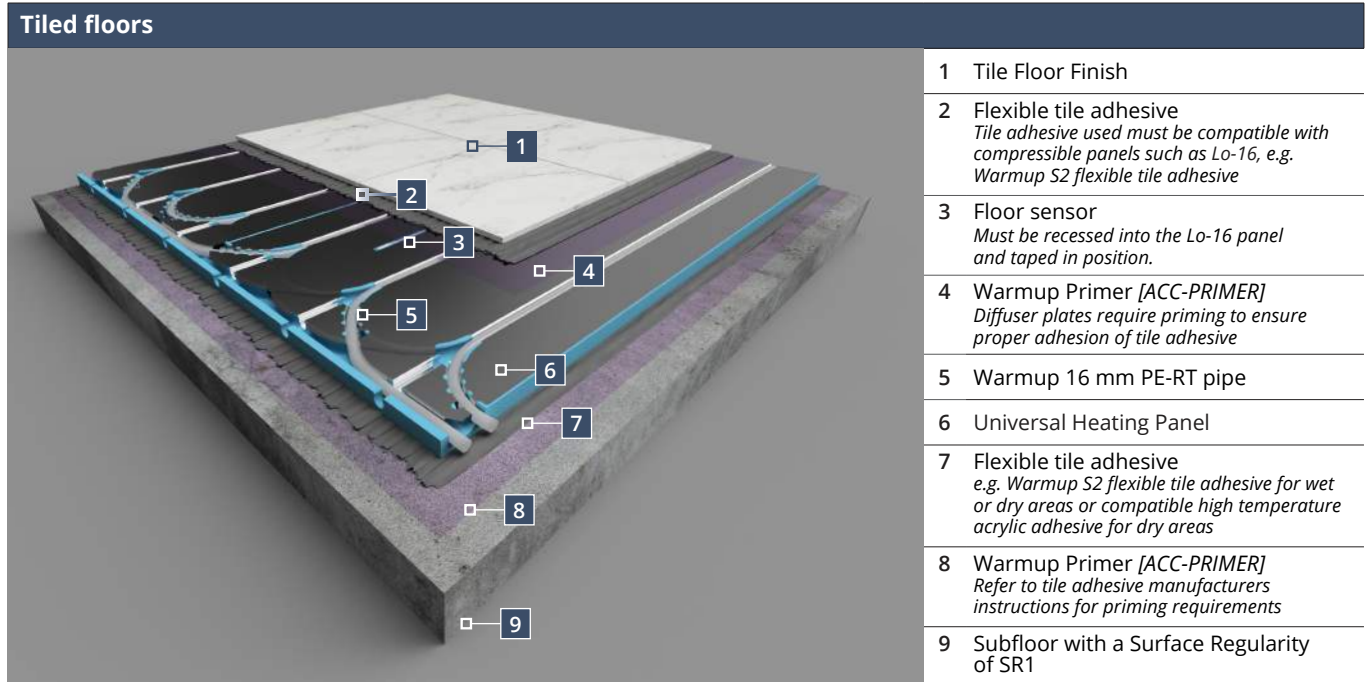
All floor finishes - Floating



- | | |
|---|---|
| 1 | Perimeter strip
<i>DCM-E-25</i> |
| 2 | Floor finish |
| 3 | Floating floor deck
<i>Such as HiDECK 18 or 18mm P5 T&G chipboard. Install referring to their instructions</i> |
| 4 | Floor sensor
<i>Must be recessed into the Lo-16 panel and taped in position.</i> |
| 5 | Warmup 16 mm PE-RT pipe |
| 6 | Universal Heating Panel* |
| 7 | Subfloor with a Surface Regularity of SR1 |

* Lo-16 panels can also be adhered to the subfloor to improve stability

Typical floor build-ups

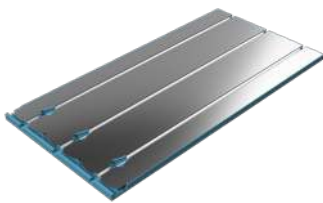


Technical specifications

Lo-16 Panels - Foam component

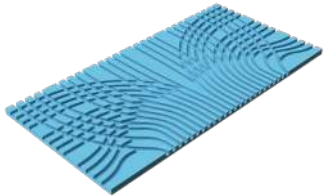
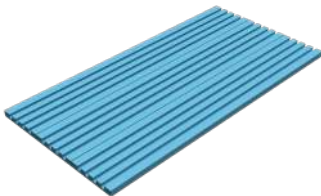
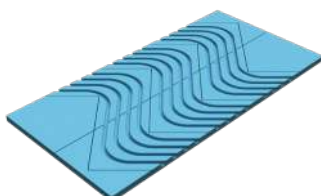
Density	32 kg/m ³
Thermal Conductivity	0.033 W/mK
Compressive Strength (10% deflection)	500 kPa
Water Absorption (2-day immersion)	<1.0% by volume
Water Absorption (Capillary)	Zero
Coefficient of linear expansion	0.07mm/mK
Water Vapour Permeability	3.2 ng/pa.m.s
Fire Behaviour	Euroclass F

Lo-16 - Universal Heating Panel



Product Code	LO16-SP-PANEL
Composition	XPS Panel with 0.20mm aluminium top layer Aluminium layer pressed inside the straight groves and sliced over the curves
Pipe centres	200 mm
Dimensions	1200 x 600 x 25mm
Weight of the Panel	1.3 kg

Lo-16 - Manifold Panel, Straight Service Panel, Curve Service Panel

Product Code			
	LO16-MP-PANEL	LO16-SS-PANEL	LO16-CS-PANEL
Composition	Routed XPS Panels		
Dimensions	1200 x 600 x 25mm		
Weight of the Panel	0.5 kg		

Lo-16 - Plain Panel



Product Code	LO16-PP-PANEL
Composition	XPS Panel
Dimensions	1200 x 600 x 25mm
Weight of the Panel	0.64 kg

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
200mm Pipe Centres*	6.20	5.23	4.52	3.98	3.56	3.22	2.93	2.70	2.50	2.32	2.17	2.04	1.92

* 200 mm pipe centres with no overboarding or levelling compound. If you are using a floating floor deck over Lo-16 beneath the floor finish, you must also include its thermal resistance, for example:
 18 mm Chipboard, R = 1.25 tog
 18 mm HiDECK 18, R = 0.45 tog

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 Lo-16 in a 21°C room heated with 40°C water is;

$$q = 3.22 \times (40 - 21) = 3.22 \times 19 = 61.18 \text{ W/m}^2$$

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 0.3 tog, 3 mm thick LVT floor finish on HiDECK 18 (0.30 + 0.45 = 0.75 tog), over Lo-16 panels in a 22°C room is;

$$T_{\text{water}} = (55 / 3.98) + 22 = 13.8 + 22 = 36^\circ\text{C}$$

Components



16mm 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 7iE - 7iE-01-OB-DC / 7iE-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 UFH Wiring Centre - WWC-09

Warmup's Wiring Centre has been expertly designed for a more efficient heating installation in projects of all sizes. The Wiring Centre allows for installs of up to 9 UFH zones, with 2 of the zones being configurable to control radiators and domestic hot water.



Warmup Primer - ACC-PRIMER

A ready to use, bond enhancing and solvent-free single component primer for the preparation of absorbent and non-absorbent floors and walls with or without surface heating.



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 Stick&Go UFH Glue - STICK&GO

Allows immediate site access, enabling installers to begin underfloor heating installations right away. Unlike traditional tile adhesives, which require on-site mixing and can take half a day to cure enough to take light traffic, this ready-to-use glue is applied straight from the tub, saving time and effort.

Contact

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