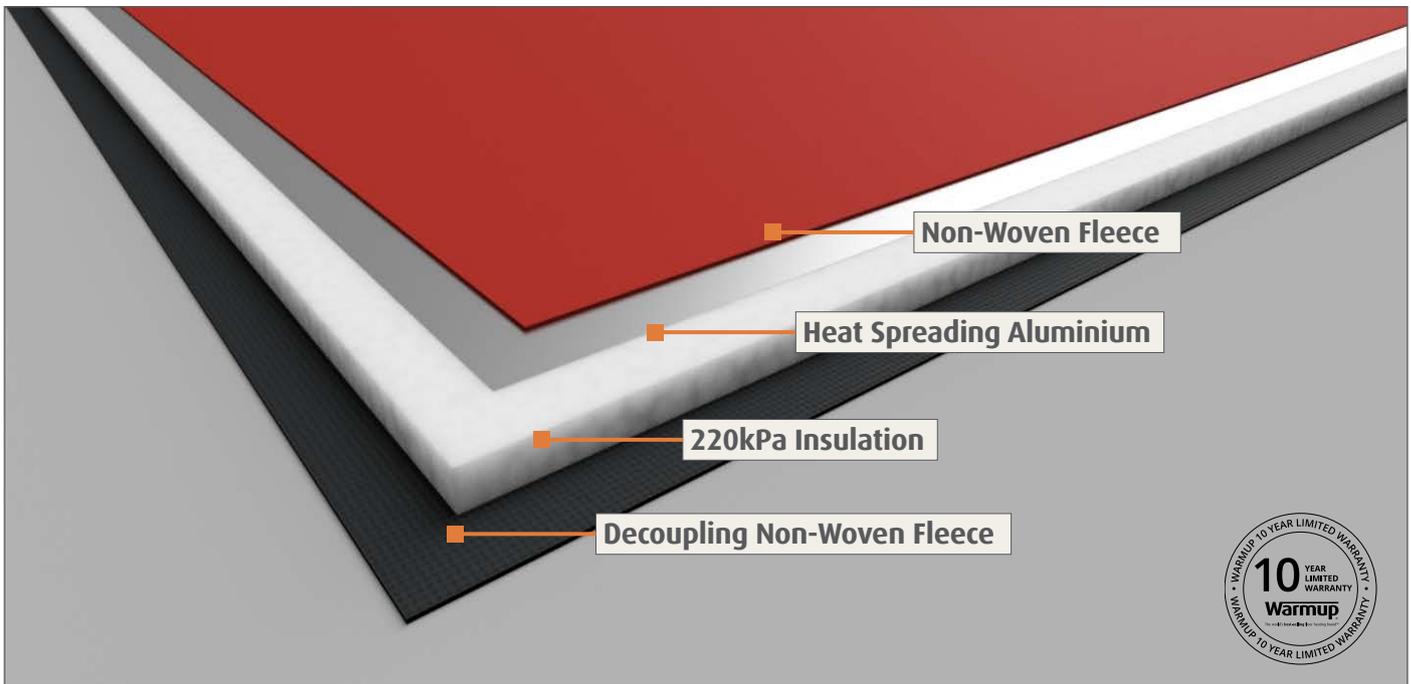


Warmup® Ultralight™

3ⁱⁿ1 Insulating Heat Spreading Decoupling



Overview

Ultralight is a specialised composite board designed for floor heating applications. Manufactured as flat, flexible sheets they are water and mould-resistant. The top surface incorporates a heat spreading aluminium layer combined with non-woven fleece.

The core of PEF insulation provides thermal separation from the floor beneath, ensuring a rapid thermal response of a heated layer of tiles or levelling compound above.

The rapid thermal response promoted by the PEF insulation and diffusion layer allows the flooring to heat up and cool down faster, resulting in a more energy efficient and comfortable heated floor, consuming up to 12% less energy compared to systems using traditional insulation.

The base layer of non-woven fleece functions as a high performance anti-fracture membrane for tile and stone floor coverings. It also facilitates a high-strength mechanical bond making high-quality installations robust and repeatable.



Electric
Heating System

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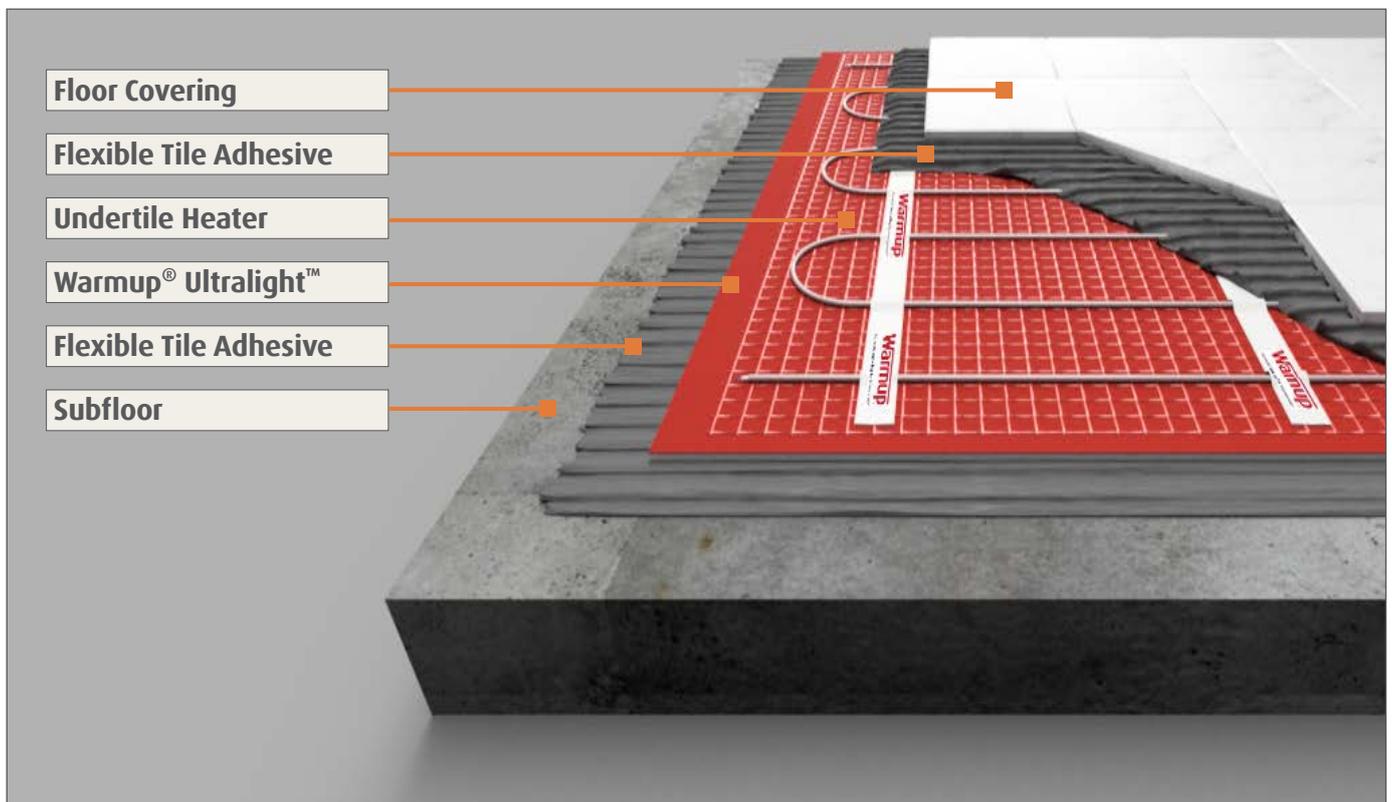
Warmup

The world's best-selling floor heating brand™

Features & Benefits

- The heat spreading aluminium layer **improves comfort and reduces running costs** by providing a 50 % more even heat spread. This enables the floor to achieve the same comfort temperature whilst using 12% less energy. See Fig 1.
- PEF insulation layer **reduces eUFH heat up times** by up to 76 minutes, reduces energy used during eUFH heat up by 69% and reduces heat loss through floors by 5% in a typical house built in 1995, more in older houses, saving you up to 60p/m² a year by improving the floor insulation level. See Fig 2.
- Decoupling fleece layer provides high performance **protection against tiles cracking** due to lateral subfloor movement in accordance with ANSI A118.12 standard.
- Lightweight and durable. Ultralight weighs 1.15kg/m² making it much **lighter and easier to carry** than standard cement-based tile insulation and backer boards and is more robust due to the high strength composite design meaning it **won't break if dropped or bent**.
- Ultralight achieved **Heavy Commercial rating** when used with large format tiles (600 mm x 600 mm) and Light Commercial rating when used with standard tiles (300 mm x 300 mm), in accordance with ASTM-C627 (Robinson Test).
- The lightweight composite design makes it **easier to cut** curves and complex shapes, compared with cement-based tile insulation and backer boards and will not dull knife blades.
- Ultralight will not crumple, dent or create dust when cutting or kneeling on the boards which means **no dust to clean or breathe in during installation**.

Subfloor



Technical Data

Technical Specifications - Ultralight		
Product Code	WCI-1	WCI-16
Pack Size	1 Board	16 Boards
Composition	Non-Woven Polypropylene Fleece Aluminium Extruded Polyethylene Foam Non-Woven Polypropylene Fleece	
Thickness	6 mm	
Dimensions	800 mm (W) x 1200 mm (L)	
Area	0.96m ²	
Weight of Board	1.1kg	
Thermal Resistance	0.111 m ² K/W	
Thermal Conductivity	0.054 W/mK	
Reaction to Fire	Euroclass E	
Release of Dangerous Substances	SVHC ≤ 0.1% w/w	
Compressive Strength, 10% Compression	220 kPa	
Point Loading, tiled	≥ 2.2 kN	
Robinsons test, 100 - 199 mm	Domestic	
Robinsons test, 200 - 599 mm	Light Commercial	
Robinsons test, ≥ 600 mm	Heavy Commercial	
7 Day Shear Strength	113 psi (780 kPa)	
Crack Resistance (Anti-Fracture / Decoupling)	≥ 1/8" => High Performance	
Long Term Water Absorption	0.052% w/w	
Water Vapour Permeability	9.12 mg/m ² h	
Mould Growth	Does not support mould growth	
Warranty	10 Year	

Heat Spread - Ultralight

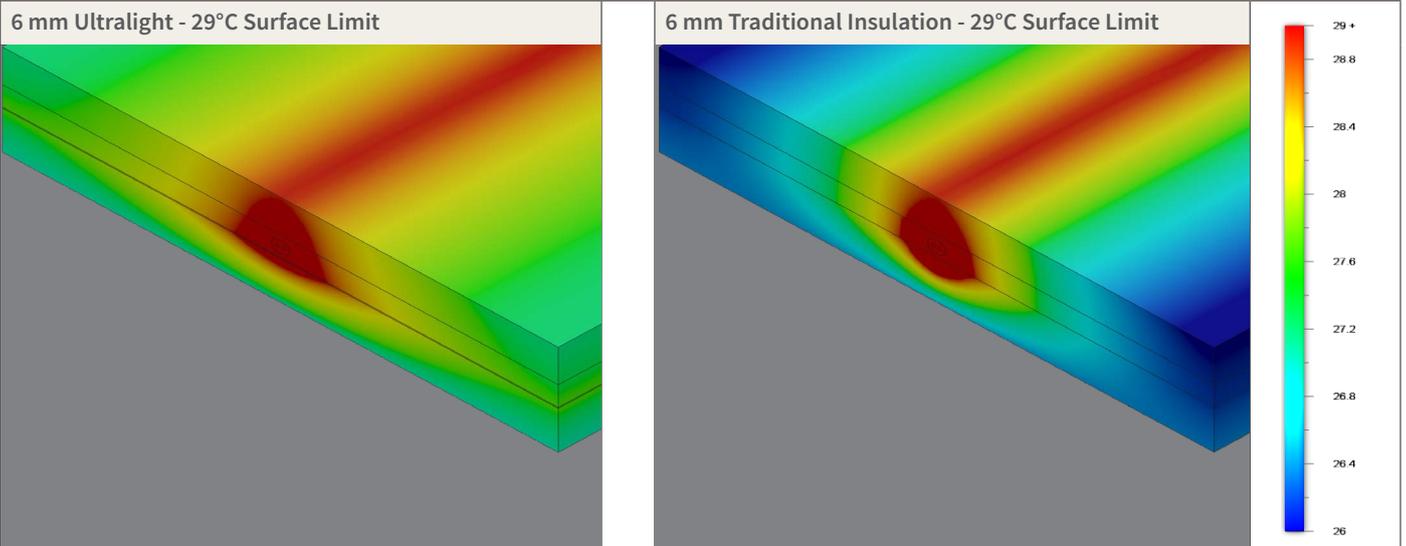


Fig. 1 - Improved Heat Spread of Ultralight Vs Traditional Insulation

When operating at a 29°C maximum surface temperature, traditional insulation would result in a minimum surface temperature just below 26°C. By comparison, Ultralight increases this to 27.5°C resulting in increased comfort and a 10.5% increase in heat output.

Response Time - Ultralight

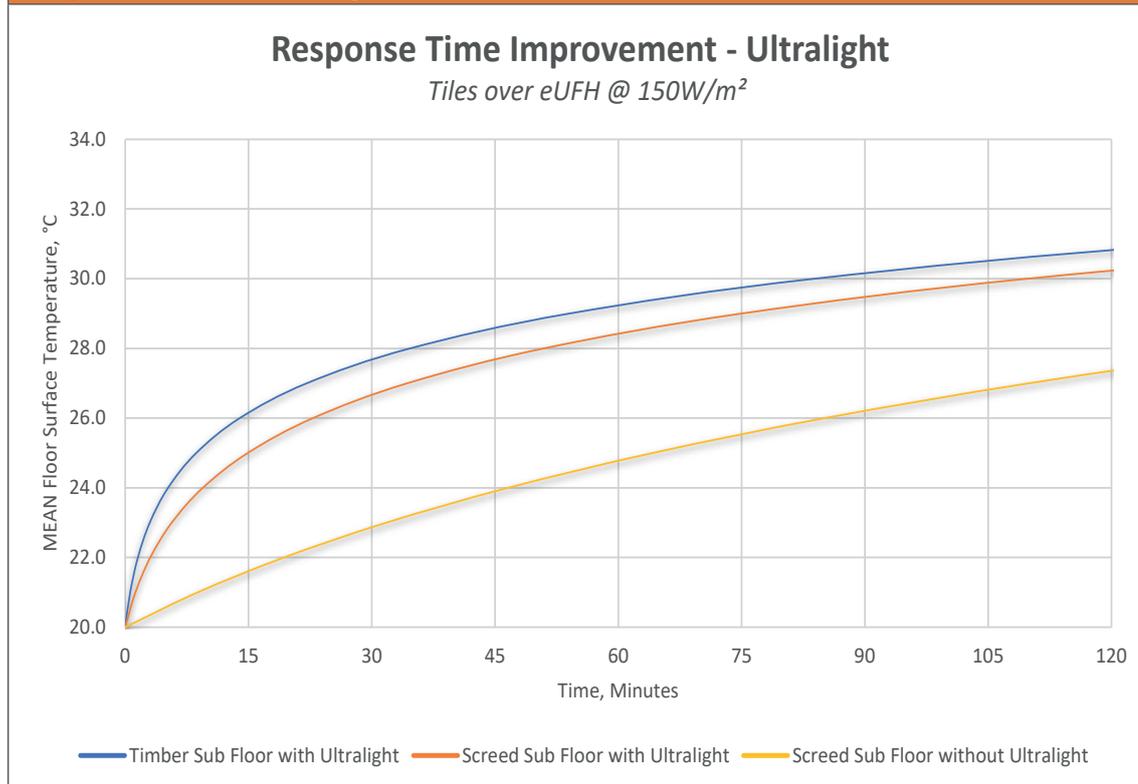


Fig. 2 - Improvement in response time due to using Ultralight

In tests, a 150 W/m² eUFH heater over a 65 mm insulated screed, the floor will take 110 minutes to achieve 27°C. By installing Ultralight beneath the eUFH, the same temperature is reached in just 34 minutes.