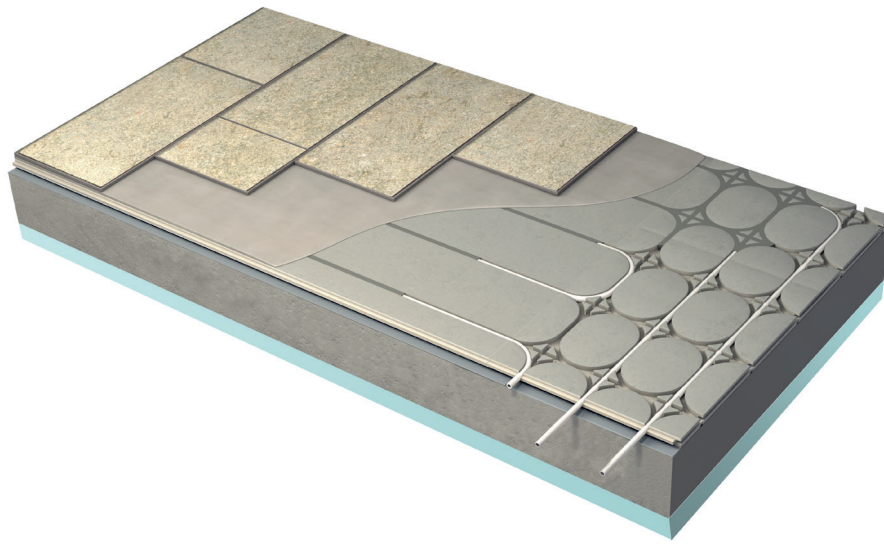


## APCG14 – 14mm Fastflo™ in pre-routed AcoustiPanel™14 over a concrete ground floor with insulation – 28mm height build-up



### AcoustiPanel™14

This tailor-made underfloor heating system offers:

- Underfloor heating which is fitted above the structural floor deck
- Fast heat transfer and high performance heat output of up to 96W/m<sup>2</sup>
- Ensures site consistency and uniformity of finish where acoustic versions have been installed on upper floors
- Low profile UFH solution with just 28mm height build up
- Full design performance indemnity
- Sustainable product made with minimum 60% recycled gypsum board

### A straightforward installation

- Fully tailored design incorporating bespoke, interlocking tongue and groove panels for optimal heating and pipework layouts
- Installed directly over a structural concrete or suspended timber ground floor
- Quick drying self-levelling skim reduces impact on project schedule – dries in 4 hours/overnight, floor finishes can be fitted after just 8 days
- A single manifold serves up to 100m<sup>2</sup>, for a quick installation that uses less material
- Robust, step-by-step Nu-Heat installation manual, including complete mechanical, electrical and layout drawings

**APCG14 – 14mm FASTFLO™ IN ACOUSTIPANEL™14 ON A CONCRETE GROUND FLOOR****Supplied by Nu-Heat**

3–4mm skim coat

23mm AcoustiPanel™14

14mm Fastflo™ tubing

Self-adhesive flanking strip

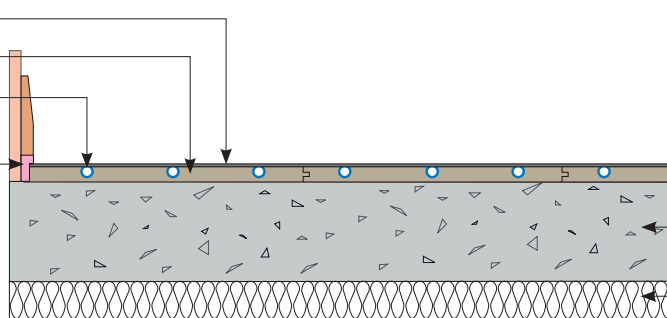
**Not illustrated**

- Castellated panel
- QuickSet self-levelling compound

**Supplied by others**

Floor structure

Insulation

**DESCRIPTION**

AcoustiPanel™14 from Nu-Heat is a unique, efficient, single floor deck underfloor heating solution.

Produced in partnership with specialist manufacturer, Knauf, the APCG14 floor construction comprises a pre-routed gypsum board into which Nu-Heat's 14mm Fastflo™ tube is neatly installed.

High thermal conductivity and a stable, ultra-smooth floor finish are achieved thanks to a combination of tongue and groove panels topped with a self-levelling skim, making the floor finish perfect for large format tiles and other high quality floor coverings.

AcoustiPanel™14 is an ideal solution for ground floor, non-acoustic, new-build and renovation apartment projects, where a simple to install, efficient and discreet underfloor heating is required.

**FLOOR HEATING TUBE**

A room or heating zone will use one, or more, coils of 14mm Fastflo™ pipe, providing an even spread of warmth across the floor. The flexibility of Fastflo™ also aids installation.

**INSULATION**

Sufficient insulation should be present to meet the requirements of Part L of the Building Regulations. Additional insulation can be added on top of the concrete slab if required (see the *AcoustiPanel™14 Guide to Application* for more details).

**UNDERFLOOR HEATING EFFICIENCY**

Setting the room thermostat 1–2 °C lower achieves the same comfort levels as with an equivalent radiator system because the heat is mostly radiant, meaning air convection currents are minimised and heat loss by natural ventilation reduced. AcoustiPanel™14 is a perfect partner for modern gas, oil and LPG condensing boilers, it can also be used with a heat pump in new-build projects.

**FLOOR STRUCTURE**

Individual AcoustiPanels™ with a glued tongue-and-groove are laid over a structural concrete deck. Once all floor heating pipe is installed, panels are grouted and a 3–4mm skim coat of the self-levelling compound is applied. Any areas of castellated panel (if specified) are also covered with self-levelling compound. The skim coat can be walked on after 4 hours or overnight and coverings can be fitted after just 8 days.

Virtually any covering can be applied over AcoustiPanel™14, but using less thermally resistive coverings ensures greater heat output and faster warm up times.

**WARRANTIES/INSURANCE**

**Manufacturer's warranty:** all UFH tube supplied by Nu-Heat is covered by a 50-year warranty, the first 10 years of which are insurance-backed.

**Product liability:** Nu-Heat maintains product liability insurance to £5 million.

**Professional indemnity:** As Nu-Heat's design service is integral to the operational effectiveness of the UFH system, the company holds professional indemnity insurance of £5 million to cover all aspects of our consultation and design services.

[www.nu-heat.co.uk/floorspecs](http://www.nu-heat.co.uk/floorspecs)



Online  
[www.nu-heat.co.uk](http://www.nu-heat.co.uk)



Freephone  
0800 731 1976 or 01404 549770

AcoustiPanel™ specification	AP14
Panel dimensions:	600 x 600 x 23mm
Area:	0.36m <sup>2</sup> per board
Density:	1160kg/m <sup>3</sup> min.
Manufactured to:	BS EN 15283-2:2008
Material (routed panel):	23mm gypsum fibreboard
Routing:	ø14mm @ 100/150/200mm centres
Skim coat:	3–4mm N410 self-levelling compound
<b>Additional mass:</b>	
Straight/double/triple end returns	33.0 kg/m <sup>2</sup>
100mm circles	34.8 kg/m <sup>2</sup>
150/200mm multi-turns	38.7 kg/m <sup>2</sup>
Castellated panel	41.7 kg/m <sup>2</sup>

### Loading data\* EN 1991-1: Point load: 5kN

Load	Average deflection under load	
	Standard AP14	AP14 on 20mm insulation @200kPa
1 kN	0.35mm	0.47
2 kN	0.60mm	0.81
3 kN	0.81mm	1.10
4 kN	1.00mm	1.35
5 kN	1.18mm	1.59

Tests were carried out under laboratory conditions at the Knauf Test Centre in Germany; results achieved on site may vary.

### Heat output (m<sup>2</sup> K/W)

Water temperature	R=0.05 (tile)	R=0.1 (timber, glued)	R=0.2 (carpet/underlay)
45 °C flow (40 °C ave.)	74 W/m <sup>2</sup>	56 W/m <sup>2</sup>	36 W/m <sup>2</sup>
55 °C flow (50 °C ave.)	100 W/m <sup>2</sup> *	75 W/m <sup>2</sup> *	54 W/m <sup>2</sup>

Nominal value; output values vary depending on specific floor finish.

\*Limited by floor covering surface temperature limit.

Point load performance data is taken from tests carried out at Knauf, Germany in accordance with the relevant BS EN ISO standards. Laboratory performances stated are specific to the above system only, inclusive of all elements shown and correct installation and should be used for guidance only.

