

Manual for installing QUICK•STEP® floors over heated sub-floors



General guidelines

Quick-Step engineered wood, laminate & vinyl floors can be used in conjunction with “low temperature” floor heating. This is true for underfloor heating systems with heating components - hot water or electric – embedded in the sub-floor.

Please note: In the Quick-Step wood range, both **Blackbutt** and **Spotted Gum** are not permitted over heated floors, due to their tendency to crack or split under very dry conditions.

The floor heating must be installed in accordance with the supplier’s instructions and the generally accepted instructions and rules. Of course, the general laying guidelines for Quick-Step flooring products without floor heating still fully apply. The use of recommended wood floor accessories, such as glue (if applicable), is also essential.

Hot water systems are preferred, as they provide a more homogeneous heat across the floor, with not cold spots. When electric blanket or wire systems are used they must be covered with a levelling compound. The elements must be installed to the walls, to reduce variation in temperature across the floor. The levelling compound serves to provide a level sub-floor, accommodate electrical components and connectors, while also improving the evenness of the floor temperature. Only floating installation should be used over this type of heating.

Preparation

Concrete moisture should be below 50% RH at the time of installation. To achieve this, it is necessary to run the heating system for 14 days prior to installation. This will push out residual moisture, and prepare the sub-floor for the installation. After 14 days, switch the heating off and wait 48hrs, or until the sub-floor has cooled below 18 degrees Celcius, before starting. Ensure the concrete surface is free of contaminates, and is structurally sound.

Points off attention:

- The maximum permitted surface temperature of the sub-floor is 27°C. The maximum hot water temperature at the boiler outlet is 50°C (if applicable).
- After installation, bring up the temperature slowly, by increasing 5 Degrees per day.
- ALWAYS change the temperature GRADUALLY at the start and end of a heating period. The relative ambient air humidity must be kept between 35 and 60%.
- Always avoid heat accumulation by carpets or rugs or by leaving insufficient space between furniture and the floor. Open joints may appear during the heating season.
- With wood and laminate floating installation, ALWAYS use a 200um Builders Plastic underneath the underlay. Must be overlapped by 300mm and taped with waterproof tape.

Installation

Engineered wood flooring

Our range of engineered wood floors can be installed floating or glued down over heated sub-floors, however, our preference is for a floating installation. This is because a continuous mechanical damp proof, in the form of 200um builder’s plastic can be installed under the underlay, to protect from sub-floor moisture. The thermal resistance (R value m² K/W) the wood floor/ Underlay combination is low, so the heating system will work very well.

Our range of engineered wood floors can also be glued down with a coat on damp-proof / adhesive combination recommended for this application. Manufacturers including Bostik, Mapei and Soudal all provide damp-proof / adhesive products for this application.

Follow the instructions carefully, and if you have further questions, contact your supplier.

We do not recommend the glue down installation method, where an electric blanket type of heating system is to be used.

Laminate flooring

Quick-Step Laminate works very well over heated sub-floors, as a floating installation only.

Focus on running the heating system prior and use of 200Um Builders Plastic as listed above.

Vinyl flooring

Both glue-down and floating vinyl products are suitable for installation over heated sub-floors.

Focus on running the heating system for 14 days prior.

With glue-down vinyl, heating should be switched on gradually and only after the adhesive has cured for at least 48 hours.

Table R values (m² K/W) of the Quick-Step products

Product	R Rating (m ² k/w)	7mm	8mm	9.5mm	14mm	20mm
Quick-Step Combi-Lay Underlay (2mm)	0.043	0.09	0.1	0.1	0.136	0.175
Quiet-Step Combi-Lay Underlay (2mm)	0.054	0.1	0.11	0.12	0.147	0.186
Cork (6mm)	0.14					
Cork (3mm)	0.07					

The coefficient of thermal conductivity λ (W/mK) of the various products can be easily calculated using the following formula:

$$\lambda = d/R$$

where:

λ = heat transfer coefficient / thermal conductivity = material constant (in W/mK)

d = thickness of the material (in m)

R = thermal resistance (in m² K/W)

For any further information contact your Quick-Step retailer or office in your nearest Capital city.