warmboard.com
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Tubing spacing

Why Warmboard's 12 inch tubing spacing is ideal.

Why is Warmboard only available with 12" tubing spacing?

This is a question we hear from those accustomed to using thin slab systems. This type of radiant heat often requires tubing to be installed every 6 inches (or closer) in order to provide sufficient heat. Warmboard is able to use tubing every 12 inches because of our superior conductivity. In fact, to match our heat output, thin slab would require tubing every 2 inches!

Thin slab concrete, and gypsum concrete, are not conductive materials. They were not intended to transfer heat, but to absorb it like a sponge. Because of this, tubing must be used every 4 to 6 inches in order to increase heat output to try and bring even, consistent comfort to the interior space in a timely manner.

Warmboard is coated with thick aluminum. Like any metal surface, Warmboard heats up quickly and evenly. Because of this, our 12 inch tubing spacing is sufficient to to heat a home quickly and evenly.

How warm is it halfway between two tubes?

The change in temperature across the surface of the floor is obtained by measuring the difference in temperature between the warmest part of the radiant floor (directly over the tube), and coolest part (half way between the tubing).

With Warmboard, there is a 1-3°F temperature difference between these locations while thin slab, with the same 12 inch spacing, varies by 5-10°F. Even with tubing every 6 inches (twice the amount), thin slab still does not equal Warmboard's performance.

Our high conductivity provides many benefits, not the least of which is greater comfort through more even floor temperature. It's one of the reasons Warmboard works better with hardwood floors. Wider tubing spacing lowers labor and materials costs by requiring less tubing, fewer manifolds and controls, and less labor to install all of these components, ensuring greater reliability. Warmboard's superior conductivity also lowers the required supply water temperature which will save a significant amount on your heating bill year after year, for decades to come. This is why we say that in radiant floors, conductivity is king, whether we are talking about tubing spacing, comfort or energy savings.

Product	Tubing spacing	Striping
Thin slab	12 inch	5–10°F
Thin slab	6 inch	2.5–5°F
Warmboard	12 inch	1–3°F