



TUBING SPACING

Why Warmboard's 12 inch tubing spacing is ideal.

Why 12" Spacing?

It's a question we hear from those accustomed to using thin slab systems as this type of radiant often requires tubing every 6 inches (or less) to provide sufficient heat. Warmboard uses 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 absorb heat like a sponge. Because of this, tubing may be necessary every 4-6 inches to increase heat output and provide comfort in a timely manner.

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

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

How Warm is the Midpoint?

The temperature variations across the floor are obtained by measuring the difference between the warmest part of the 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.

