

Flexible Graphite Heat Transfer Plates

Lighter. Faster. Better. FlexPlates:

- Lighter than aluminum plates
- Install much faster
- Transfer heat more evenly
- Use BTUs more efficiently
- Lower required water temps.



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# Lighter. Faster. Better. FLEX PLATE<sup>TM</sup> Fexible Graphite Heat Transfer Plates



FlexPlate is a revolutionary new type of under floor heating plate. The primary material in the plate is a specially processed natural graphite, giving FlexPlate 50% higher thermal conductivity than aluminum. Extensive performance testing indicates FlexPlate will outperform the extruded aluminum plates.

## Graphite is unique.

FlexPlate is made from naturally occuring graphite that has been specially processed to give it unique thermal properties. Similar products have been used for years in the electronics industry to dissipate heat away from key components in plasma TVs, cell phones, and computers. Recent enhancements to this technology enable the radiant market to benefit from this innovative material.

Graphite's unique atomic structure enables it to transfer heat more efficiently than aluminum. And more evenly at start-up.

The manufacturing process for a graphite plate has a substantially lower carbon footprint and lower CO<sub>2</sub> emissions as compared to aluminum or copper. It is also much lighter to ship, and of course, to install. FlexPlates can be used in underfloor, wall, ceiling, and above-floor applications.

#### Homeowner benefits:

Lower required fluid temperature means the ability to use more efficient heat sources
A more even, comfortable heat

#### **Installer benefits:**

- Light weight and flexible
- Trim-to-fit format
- Cut with a utility knife
- Fast, simple installation
- No sharp edges

Using FlexPlates increases heat output by about 15% compared to extruded aluminum plates, or about 75% compared to bare PEX stapled up.

With FlexPlate, you can increase the thermal conductivity of any wood floor, dropping system water temperature by 10 degrees, or more.

This means that required water temperatures can be lowered by 5-10° F versus extruded aluminum plates and 30-45° F versus bare PEX stapled up. Due to this efficiency, FlexPlates more aptly utilize high efficiency, low temperature heat sources such as condensing boilers, geothermal, or solar.



FlexPlate graphite plates install 40% faster than aluminum plates.



## The infrared camera doesn't lie.

The FlexPlate on the left exhibits more even distribution of the heating from the hydronic tubing below the floor. It also heats the floor covering above at a slightly accelerated pace.



Graphite Heat Transfer Sheet

Extruded Polyethylene Tubing Channel



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The illustration below shows an abbreviated joist bay installation and how the staple pattern is applied.







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