Can Styrofoam Be a Substitute for Perlite?

Can you use styrofoam as a perlite substitute? You might also be wondering why to use perlite in the first place. Here’s the lowdown on this helpful garden amendment.

What is perlite?

Perlite is sourced from volcanic glass with high water content. During the manufacturing process, the application of heat turns the glass into small, white balls.

These tiny white balls help aerate the soil and improve its water retention abilities. Unlike vermiculite, another popular garden product, perlite doesn’t absorb as much water.

Both perlite and vermiculite are considered non-renewable mineral sources.

Many commercial soil mixes contain either material to improve soil condition.

Perlite is relatively inexpensive and easy to use. But working with perlite can get dusty, so make sure to wear a mask when mixing it with soil.

Styrofoam as perlite substitute?

Not everyone can source perlite easily. So can you use styrofoam instead?

The short answer? Yes.

However, not all types of styrofoam will work. Things like packing peanuts are a poor choice for a perlite substitute.

Some gardeners swear that grocery store meat trays (as long as they’re thick) will work just as well as perlite when zapped through the blender.

Unfortunately, styrofoam is pretty terrible for the environment. It’s not biodegradable and contains chemicals that can leech out into the soil, polluting groundwater.

Overall, styrofoam is a bad substitute for perlite. I would not recommend it for use in gardening.

In fact, I’d suggest completely avoiding products packaged in styrofoam.

Other substitutes for perlite

Aside from perlite, gardeners can use the following:

- vermiculite
- sand
- horticultural grit
- finely crushed gravel
- rice husks

Peat is another substitute for perlite, but it’s not one I recommend. The reason is that while peat moss is technically a renewable resource, harvesting it damages valuable wetlands. Additionally, peat moss takes hundreds, if not thousands, of years to form.