

At New England Arbors, we make products that we use to grow vegetables for our own families. So the very fact that making safe products is extremely important to us. Here is some information that will explain the differences between regular PVC and the Food Safe PVC we use for our garden products.

## About PVC.

Regular PVC (polyvinyl chloride) is a common, strong but lightweight plastic. It is made softer and more flexible by the addition of plasticizers.

If no plasticizers are added, it is known as uPVC or Rigid PVC (Food Safe PVC). uPVC or Rigid PVC does not contain any phthalates or BPA and is safe and stable.

There are several advantages to using uPVC in the home. As previously mentioned, it is a very safe material, so it can be used to transport water, or in items that are designed to go in the body without fear of ill effects. uPVC is also one of the lowest maintenance building materials that you'll ever find.

It does not warp, rot or rust, even when subjected to the harshest of weather conditions. It'll also never fade, and will stay looking good year in and year out. The colour actually goes right throughout the thickness of the material. If it gets scratched, you can usually polish out most surface scratches without any issue at all. All you have to do maintenance wise is to give it a clean every now and again!

## Comparison Chart

|                            | PVC                                    | Food Safe PVC   |
|----------------------------|--|---|
| <b>Full Name</b>           | Polyvinyl Chloride                     | Unplasticized Polyvinyl Chloride  |
| <b>Uses</b>                | Pipes, cable insulation, clothes, toys | Vita Products, plumbing pipes, fencing, drainage tubing   |
| <b>Contains Phthalates</b> | Yes                                    | No  |
| <b>Contains BPA</b>        | Yes                                    | No  |
| <b>Properties</b>          | Flexible, but durable. Low cost.       | Rigid and durable; does not flex; safe for transporting drinking water; fire resistant; recycleable |

## Uses of Flexible PVC vs. Rigid/uPVC

### In Construction

As a flexible plastic, PVC is used to produce a wide variety of piping. Larger PVC pipes are often used in plumbing to distribute non-potable water. PVC piping can also be used to insulate electrical cables.

Rigid/uPVC is used as a replacement for wood in construction, such as in double glazed window frames and window sills and in what is known as vinyl siding in the U.S. It is a versatile material that can be manufactured in many colors or made to look like other materials (e.g., wood). uPVC is also used instead of cast iron for certain types of heavy-duty plumbing and draining.

### Rigid/uPVC vs. PVC Pipes

PVC is used as a replacement for copper and aluminum pipes and is used in waste lines, irrigation systems and pool circulation systems. It is easy to cut into smaller pieces and can be fastened with glue, making it a good alternative to metal.

Rigid/uPVC is used for the majority of plastic pipes in the world, as it is incredibly resistant to chemical erosion and has smoother inner walls that help to encourage water flow. It also functions well in a wide range of temperatures and operating pressures. It is incredibly strong, stiff and cost-effective, and so is often used for sewage lines and exterior drainage pipes.

### Other Uses

Small and slender PVC pipes are sometimes found in medical equipment. PVC is also used in leather-like or waterproof clothing materials, shoes, toys, car interiors and car cables, shower curtains, and numerous other plastic products.

Because Rigid/uPVC has fewer health concerns associated with it, it is found in medical and dental pieces. For example, uPVC is sometimes used for dental retainers.

### Safety and Risks

PVC-coated wires can form HCl fumes in a fire, which can be a health hazard. Plasticizers may leach out of PVC into the environment.

As mentioned before, phthalates are what allow PVC to be flexible. Some of the phthalates used in PVC have been restricted or banned over the years, and many others are being replaced with safer phthalates. Dibutyl, benzyl butyl, and DEHP are some of the more commonly banned or restricted phthalates.

To date, there are no mainstream concerns regarding the use of Rigid/ uPVC, which does not use phthalates or BPA.

### Disposal

Neither PVC nor uPVC are biodegradable. However, uPVC is recyclable and can be reshaped into new products or pipes at very high temperatures.

### References

[https://en.wikipedia.org/wiki/Polyvinyl\\_chloride](https://en.wikipedia.org/wiki/Polyvinyl_chloride)

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