

Schedule 80 PVC – Frequently Asked Questions

What does "schedule 80" mean?

A pipe's "schedule" refers its wall thickness. PVC pipe is categorized in two main ways: by size and by schedule. The larger the schedule of PVC pipe, the thicker the walls. Thicker pipe and fitting walls allows for higher pressure applications. All nominal pipe size PVC pipe has the same outer diameter – no matter what the schedule. Larger schedule pipe like schedule 80 PVC has more restricted flow than smaller schedule pipe of the same size. In other words, the inside diameter of the pipe is what is different.

Schedule is a type of categorization that is used in other types of pipe also. For instance, there is a schedule 80 steel pipe.

What is schedule 80 PVC used for?

Because schedule 80 PVC is a thicker pipe, it is usually is used for applications that are commercial or industrial in nature. These more demanding applications generally require piping that will stand up to high pressures and harsh environments.

PVC is a corrosion resistant material, and it is also resistant to a number of chemicals. Unlike metal pipe, PVC will not rust, pit, or scale. The inside of the pipe remains smooth allowing for unobstructed flow of the media inside. A few common uses of schedule 80 PVC include: wastewater management, chemical processing, and use in manufacturing plants.

What are the benefits of schedule 80 PVC?

Schedule 80 PVC has a number of benefits that contribute to its place as one of the most widely used piping materials in the world. For one, it is a cost effective material and is widely available. PVC is also lightweight and easy to handle and install. Other than a saw and PVC cement, no other special tools are needed for installation (unlike other pipe materials). That makes for fast install times and attractive labor costs.

Schedule 80 PVC is also capable of handling higher pressures than schedule 40 PVC and other types of pipe. PVC, unlike metal, is corrosion resistant and will not rust. That means pipes stay well preserved even after years of liquid handling. PVC does not pit, scale or breakdown when exposed to moisture.

One of the greatest benefits of sch 80 PVC is its resistance to a range of chemicals. It is resistant to most salts, acids, bases, oxidants and more. Always refer to chemical resistance data to be sure PVC will work for your application.

Does schedule 80 PVC come in any other colors?

Most commonly, schedule 80 PVC is manufactured to have a dark gray color. The coloring is added to the PVC to distinguish it from other types of pipe. Schedule 80 PVC can also be found in other colors like white and black – though it is less common.

What is the maximum temperature rating of schedule 80 PVC?

The maximum suggested temperature rating for schedule 80 PVC pipe and fittings is 140 degrees Fahrenheit. Exposing PVC to temperatures above this threshold may cause damage to the pipe.

Where can I find schedule 80 PVC pipe and fitting dimensions?

Pipe and fitting dimensions for schedule 80 PVC can be found in the Commercial Industrial Supply Resource Center – HERE.

What is the difference between schedule 80 and schedule 40 PVC?

A pipe's schedule refers to its relative thickness. Schedule 80 PVC pipe has thicker walls than schedule 40 PVC pipe. Therefore, it can handle higher pressure applications. Schedule 40 PVC is usually white in color and is used for irrigation, water handling and other relatively low pressure jobs. Schedule 80 PVC is usually dark gray in color (though it can come in other colors) and is primarily used in more heavy-duty applications like industrial and institutional settings.

Does schedule 80 PVC work with schedule 40? Can they be used together?

Schedule 80 PVC and schedule 40 PVC pipe and fittings of the same size do fit together. Though they theoretically can be used together in the same pipe line, it is generally recommended that you use one or the other depending on the demands of your application.

When working with any sort of pipe line, your line is only as strong as your weakest point. In other words, a pipe line built entirely from schedule 80 PVC pipe and fittings that contains only one schedule 40 PVC fitting is only able to handle as much pressure as that thinner schedule 40 fitting. If it is too weak to handle the pressure in the line, the line will fail (ie. Crack, leak, or burst).

Schedule 80 PVC parts can be used in a primarily schedule 40 PVC line, but usually this is not necessary, and because sch 80 PVC costs more than 40, it doesn't make much sense.

How is schedule 80 PVC made?

PVC pipe and fittings start out as resin. These are little pellets or granular pieces of PVC. Pipe and fittings manufacturers melt down the resin and add dye. Then it is sent through a pipe extrusion machine to make pipe or into a mold injector to make molded PVC fittings. Some pipe and fittings are fabricated, meaning they are not extruded or molded, but have to be made specially using PVC sheet or several PVC parts put together.

