

# Advantages of Eslon Sch80 PVC and CPVC Pipe

Sekisui Eslon PVC and CPVC pipe have a number of outstanding features, such as high chemical resistance, easy installation, and reasonable price, which can lead to the reduction of total construction cost. Eslon PVC and CPVC can or should replace other materials of construction in size ranges available for all sorts of piping systems.

CPVC (Chlorinated Polyvinyl Chloride) is another rigid pipe which has three highly-desirable characteristics, good mechanical strength at high temperatures and higher chemical resistance and relatively compared to metal. CPVC polymer is more chlorinated into PVC polymer. This extra chlorine is responsible for the material's high-temperature strength and other properties which are valuable for industrial piping. For pressure piping

applications, it is recommended for temperatures as high as 200°F compared with 140°F of PVC.

Eslon Sch80 PVC & CPVC Pipe ranging in sizes from 1/2" through 24", and PVC fittings and PVC valves are available for light, medium, and heavy duty use.

PVC and CPVC are environmentally friendly polymer in terms of low carbonic acid gas emission in manufacturing process

## Advantages

### Chemical Resistance

PVC and CPVC pipe are inert to attack by strong acids, alkalis, salt solutions, alcohols, and many other chemicals. They are dependable on corrosive applications and impart no tastes or odors to materials carried in them. They do not react with materials carried, nor act as a catalyst. All possibility of contamination, or chemical process changes, and all danger of clouding, slugging, or discoloration are eliminated.

### Strength

PVC and CPVC pipe are highly resilient, tough and durable products that have high tensile and high impact strength. They will withstand surpris-

ingly high pressure for long periods.

Fire Resistance PVC and CPVC pipe products are self extinguishing and will not support combustion. They have an ASTM E-84 flame spread rate of 25 or less.

### Internal Corrosion Resistance

PVC and CPVC pipe resist chemical attack by most acids, alkalis, salts, and organic media such as alcohols and aliphatic hydrocarbons, within certain limits of temperature and pressure. They provide the needed chemical resistance, while eliminating the disadvantages of special metals, lined piping, glass, wood, ceramics, or other special corrosion-resisting materials, which formerly had to be used.

### External Corrosion Resistance

Industrial fumes, humidity, saltwater, weather, atmospheric, or underground conditions, regardless of type of soil or moisture encountered, cannot harm rigid PVC and CPVC plastic pipe. Scratches or surface abrasions do not provide points which corrosive elements can attack. Immunity to Galvanic or Electrolytic Attack PVC and CPVC pipe are inherently immune to galvanic or electrolytic action. They can be used underground, underwater, in the presence of metals, and can also be connected to metals.

### Freedom from Toxicity, Odors, Tastes

PVC and CPVC piping are non-toxic, odorless, and tasteless. They have been listed by the National Sanitation Foundation for use with potable water.

### Corrosion Free

With many other pipe materials, slight corrosion may occur. The corroded particles can contaminate the piped fluid, complicating further processing, or causing bad taste, odors, or discoloration. This is particularly undesirable when the piped fluid is for domestic consumption. With PVC and CPVC, there are no corrosive by-products, therefore, no contamination of the piped fluid.

### Low Friction Loss

The smooth interior surfaces of PVC and CPVC pipe, compared to metal and other piping materials, assure low friction loss and high flow rates. Additionally, since PVC and CPVC pipe will not rust, pit, scale, or corrode, the high flow rates will be maintained for the life of the piping system.

### Low Thermal Conductivity

PVC and CPVC pipe have a much lower thermal conductivity factor than metal pipe. Therefore, fluids being piped maintain a more constant temperature. In most cases, pipe insulation is not required.

### Easy Installation and Low Installation Cost

PVC and CPVC pipe are lightweight, convenient to handle, relatively flexible, and easy to install. For example, it is approximately 1/5 to 1/6 for the weight of metal.

They have smooth, seamless interior walls. No special tools are required for cutting. They can be installed using solvent cementing, threading, flanging techniques.

These features lead to lower installed costs than conventional metal piping.

### Maintenance Free

Once a PVC or CPVC piping system is properly selected, designed, and installed, it is virtually maintenance free. It will not rust, scale, pit, corrode, or promote build-up on the interior. Therefore, years of trouble-free service can be expected when using Eslon PVC and CPVC pipe.

### Standard Approved

Sekisui Eslon PVC and CPVC pipe complies with the industry standards and requirements as set forth by the American Society for Testing and Materials (ASTM) and the National Sanitation Foundation (NSF International).