

Chemical Resistance

PVC-U drains and sewers are particularly resistant to chemical attack in the form of effluent liquids and gases.

Acids and alkalis normally occurring in the ground, as well as concentrated fertilizer, have no effect on PVC-U. However, where organic solvents are likely to pass down the pipes or be leaked into the soil or where consideration is being given to the use of PVC-U pipes for other than established uses, Engineers or Specifier's should consult with the Technical Design Department at FloPlast Limited.

Comprehensive chemical resistance tables are contained in BSCP 312: Part 1: 1973, or ISO/TR10358.

These tables relate to situations where the pipe is used for conveying the chemical alone. In a drainage pipe, the chemical is likely to be diluted and flushed through by larger quantities of water.

As a general guide, information relating to chemicals that might find their way into a drainage system and be flushed through in a diluted form is given below. If the pipe is to be used to convey the chemical alone, consult the chemical resistance tables in BSCP 312: Part 1: 1973, or ISO/TR10358.

✓ = Satisfactory

x = Unsatisfactory

Acetone	x	Ethane	✓	Nicotine	✓
Aliphatic hydrocarbons	✓	Ethylene Glycol	✓	Nitrobenzene	x
Ammonia Solution (up to 35%)	✓	Ethanol	✓	Oils and Fats	✓
Ammonium nitrate	✓	Ethers	x	Oxalic acid	✓
Ammonium sulphate	✓	Ethyl methyl ketone	x	Oxygen	✓
Aniline	x	Fatty acids (higher)	✓	Paraffin	✓
Aromatic hydrocarbons	x	Fixing solution (photographic)	✓	Petrol/benzene mixture	x
Beer	✓	Fluorine	x	Petroleum ether	x
Benzene	x	Formaldehyde (up to 40% aqueous solution)	✓	Phosphates	✓
Brine	✓	Fructose	✓	Phosphoric acid	✓
Calcium chloride solution	✓	Fruit juices	✓	Plating solutions	✓
Calcium hypochlorite	✓	Fuel oil	✓	Potassium nitrate	✓
Carbon dioxide gas	✓	Glycerol	✓	Propane	✓
Carbon tetrachloride	x	Glycol	✓	Salicylic acid	✓
Castor oil	✓	Hydrochloride acid	✓	Sea water	✓
Chlorine saturated aqueous solution	x	Hydrogen	✓	Sodium chlorate	✓
Chloroform	x	Hydrogen sulphide	✓	Sodium hypochlorite (up to 15% available chlorine)	✓
Chromic acid plating solutions	✓	Lactic acid (up to 10% aqueous solution)	✓	Sulphuric acid (up to 80% aqueous solution)	✓
Cider	✓	Lead arsenate	✓	Tannic acid	✓
Citric acid	✓	Linseed oil	✓	Tanning extracts	✓
Copper chloride	✓	Lubricating oil	✓	Tetrahydrofuran	x
Copper sulphate	✓	Magnesium nitrate	✓	Toluene	x
Creosote	x	Margarine	✓	Trichlorobenzene	x
Cresols	x	Metallic soaps (water soluble)	✓	Turpentine	✓
Cyclohexanone	x	Methyl acetate	x	Vegetable oils	✓
Detergents diluted for use	✓	Milk	✓	Vinegar	✓
Developers (photographic)	✓	Mineral oils	✓	Whey	✓
Emulsifiers	✓	Naptha	✓	Wines and spirits	✓
Emulsions (photographic)	✓	Napthalene	x	Zinc sulphate	✓