Durapipe FIP
First In PVC

INDUSTRIAL FLUID HANDLING

Durapipe PVC-U – for process chemicals and industrial fluid handling.

Our PVC-U pipe and fittings provide excellent chemical resistance making it ideal for various industrial applications.

PVC-U allows the safe transportation of many acids, alkalis and chemical concentrates without fear of corrosion and environmental pollution.

Durapipe PVC-U is a solvent welded, fully matched pipework system incorporating pipe, fittings and valves that is available in both imperial and metric sizes.

PVC-U is lightweight and is extremely easy to install which can save both time and money on any given project when compared to other, more traditional pipework materials.

Furthermore, Durapipe PVC-U is fully WRAS approved and it also meets the requirements of other internationally recognised standards and approvals.

Durapipe UK PVC-U is listed in the 'List of Approved Products' published by the DWI.





Key Product Information

- Size Range: 1/2" to 12" *(Imperial)*, 12mm to 315mm *(Metric)*
- Pressure Rating: *(Metric)*
  Pipe – 20mm to 110mm PN16, 160mm to 315mm PN10
  Fittings – 12mm to 225mm PN16, 250mm to 315mm PN10
- Temperature Rating: 0° to 60°C
- Pressure Rating: *(Imperial)*
  1/2" to 6" pipe Class E
  up to 12" pipe Class C
  1/2" to 6" fittings Class E
  8" to 12" fittings Class C

PVC-U

Key Product Features

- Lightweight
- Easy to install
- Corrosion resistant



Typical Applications

- Acids and alkalis
- Effluents
- Potable water
- Chemical processing
- Effluent treatment

Specialist pipework system for process chemicals and industrial fluid handling



- Fully integrated range of pipe, fittings and valves (manual and actuated)
- Available in both metric and imperial systems
- Unrivalled level of third party approvals
- Easy to Install
- Corrosion resistant
- Reduced installation costs
- 50 year design life

What is PVC-U?

PVC-U (Polyvinyl chloride unplasticised) is a highly reliable resin with high performance properties in terms of thermal stability, chemical resistance and mechanical operation which is obtained by the presence of chlorine in the molecular structure.

The different formulations obtained by the addition of suitable additives and stabilisers, make PVC one of the most versatile plastic materials, providing several opportunities to use PVC in different industrial applications.

PVC overcomes many problems that can be associated with other pipework materials when conveying corrosive chemical fluids or the distribution or treatment of general water.



Durapipe PVC-U has been used for the conveyance of water, effluents, acids and chemical concentrates within different industrial applications for many years.

Where is typically PVC-U used?

- Water and Waste Treatment
- Chemical Processing
- Process Engineering
- Food and Beverage Manufacturing
- Marine
- Power Generation

What is PVC-U typically used for?

- Effluent Treatment
- Acids and Alkalis
- Chemical Dosing
- Brine
- Sterilants
- Flocculants







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Durapipe FIP PVC-U Case Study Examples

Water Treatment

Wessex Water, Dorset

Waste Treatment

"The team at Durapipe provided excellent service from the initial enquiry, continuing throughout the installation process."

Mike Back, Damar Group



South West Water

Water Treatment

"We wanted to standardise our pipework specification to a single manufacturer which has all the required compliances and approvals to support our industry."

Graham Cookson, South West Water



Thames Water, Hampshire

Effluent Treatment

"Durapipe PVC-U was the most appropriate solution due to its lightweight material and maintenance free qualities."

Darren Brighton, Tuke & Bell



Process Industry

Wedge Group

Contaminated Water

"Durapipe PVC-U was the obvious choice to carry our contaminated water, the product is reliable and hard-wearing."

Andrew MacLean, Newport Galvanisers



Autoglym Car Care

Chemical Process

"Given the exacting requirements of this project, Durapipe PVC-U pipe, fittings and valves were installed for all pipework requirements, to ensure consistency throughout the factory."

Tim Sellicks, Brimair Engineering



Industrial General

BB Battery Plant, China

Lead Oxide Slurry Distribution

"We needed to ensure the pipework system could cater for the substances that would be passing through it and the technical advice and support offered by Durapipe UK during the specification stage of the project was exceptional."

Mike Dunn, Chloride Technical & Trading



Seawater dosing from a submarine

Hypochlorite Dosing

"We required a highly engineered, sophisticated solution to fit into our system and Durapipe provided the perfect product with FlowX3 and PVC-U piping."

Kevin Wheeler, WES



Why use PVC-U?





Chemical Resistance

PVC-U has excellent chemical resistance properties which allows the safe transportation of a range of industrial fluids and aggressive chemicals without fear of corrosion and environmental pollution.

For a full details of the chemical resistance of Durapipe PVC-U please refer to our Chemical Resistance Brochure (04900004) or contact our Technical Support Team on 01543 272445.



Cost-effective Pipework

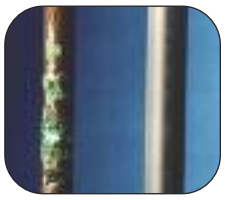
PVC-U pipe and fittings are extremely cost-effective, both in terms of material cost and even further when considering installed costs. A PVC-U system can offer economic benefits over many years due to its high performance qualities as well as low maintenance properties especially when compared to alternative materials. No expensive tooling, equipment or hot works are required for installation which makes the system extremely cost-effective.

Corrosion and Limescale Resistant

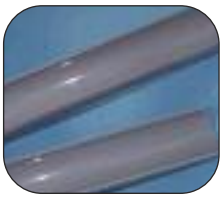
PVC-U is extremely corrosion resistant even when conveying chemical concentrates, acids and alkalis or contaminated water. Furthermore, the smooth-bore lining of PVC-U pipework prohibits any limescale build-up, which not only helps to maintain a consistent flow rate, but can also mean less maintenance costs during the lifetime of the system.



Corroded steel pipe



Copper pipe vs PVC-U pipe



Plastic pipe

Fast, Simple and High Integrity Jointing

Solvent welding is a simple process which produces a permanent joint of strength equal to, or exceeding, the pipe itself. No special tools, equipment or hot works permits are required.









Reduced Installation Costs

PVC-U is a solvent-weld jointed pipework system, which when coupled with the many other factors that make plastic pipework easier to install than traditional materials, mean that PVC-U can deliver reduced installation costs when compared to alternative pipework materials.

Lightweight

PVC-U is approximately one-sixth of the weight of steel pipework. Therefore, Durapipe PVC-U is much easier to handle, especially during installation on-site.



Sustainability and Environment

The energy used to make Durapipe PVC-U from raw material compares favourably with, for example steel pipe manufacture because lower conversion temperatures are needed. Furthermore, our processes are clean with low process emissions.

Durapipe PVC-U pipe and fittings are cheaper and easier to transport because they are lighter in weight than the equivalent metal pipes. They can be recycled at the end of life into other products, and scrap during the manufacturing process can also be recycled and reused. This minimises the need for any thermoplastic pipe scrap entering the waste stream.

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Why use Durapipe FIP PVC-U?

Valves and Flow Control

A comprehensive range of valves is available to support the Durapipe FIP PVC-U system. These include ball, butterfly, diaphragm, non-return, solenoid and air release valve types which can all be either pneumatically or electrically actuated.

Similarly, we also offer a wide selection of flow control products such as flowmeters and sophisticated measuring devices which can be easily incorporated into a matched Durapipe FIP PVC-U pipeline.

Our in-house Valve department, dedicated to our valves and flow control products, provides expert advice about product selection and system design.





Unrivalled Third Party Standards and Approvals

Durapipe FIP PVC can boast the highest levels of international standards and approvals in the industry.

The system is both fully WRAS approved and is also listed in the 'List of Approved Products' published by the DWI.

This unrivalled level of third party approval offers total assurance to the designer, installer and end user that Durapipe PVC-U is a consistent and reliable pipework system.

Furthermore, Durapipe FIP PVC-U is manufactured to the highest level and meets with the requirements of many international standards and approvals.

Durapipe FIP PVC-U has a 50 year design life with a residual safety factor of 2:1.

BUREAU VERITAS

RINA

WRAS APPROVED PRODUCT

Approved for use within public water supplies and by the Secretary of State. Durapipe PVC-U is listed in the "List of Approved Products" published by the DWI.





Technical Support

We offer an unrivalled level of technical support where our experienced team can provide product training and installation advice on any given project. They also provide material take-off advice from architects' drawings.

Quality Manufacturing

Quality is central to the operation with BS EN ISO9001 certification and within an environmental management system which operates in accordance with the requirements of ISO14001.





Global Distribution Network

Durapipe FIP PVC-U is available from an extensive international network of distributors and stockists.
Please contact us for details of your nearest outlet.

Company Chemist

Our internal company chemist is at your disposal. If you have concerns regarding the chemical combination that a pipework system needs to convey, we can evaluate suitability of the chemical you wish to convey and advise on the best material to use for the system.



Abrasion Resistance

Durapipe FIP PVC-U offers good resistance to abrasion and erosion from aggressive slurries.

No Metallic Stabilisers

Durapipe FIP PVC-U does not contain any harmful metallic stabilisers, and is widely used to convey high purity deionised water in semi-conductor and pharmaceutical applications.

Non-Toxic

Materials used are selected for their toxicological properties, and suitability for conveying cold potable water.