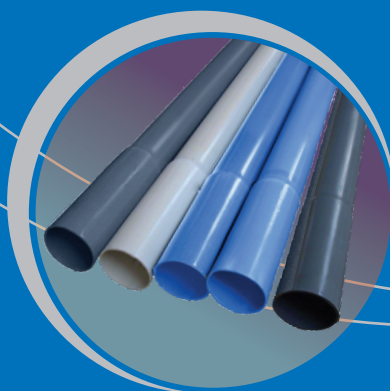




EXPANDING FRONTIERS

Ori-Plast[®]
COMPLETE PIPING SOLUTIONS

PVC PIPES



Ori-Plast and You

You may not see us...but we are your silent, hardworking friend, working relentlessly from the background in your beautiful kitchen and toilet. Ensuring free flow of water inside and outflow of waste so as to keep your habitat livable.



Background

For over four decades Ori-Plast has looked only forward (1965 to 2010 and beyond). The founder of the company the late and honourable Mr. S R Agarwal, had a knack for transforming opportunities into achievements. Harnessing the benefits of plastic pipes and turning it into a widely accepted material for a diverse range of applications was his pioneering vision, and it was shared by all who teamed up with him. In the process Ori-Plast started producing pipes at a time when very few people had heard, much less understood their potential.

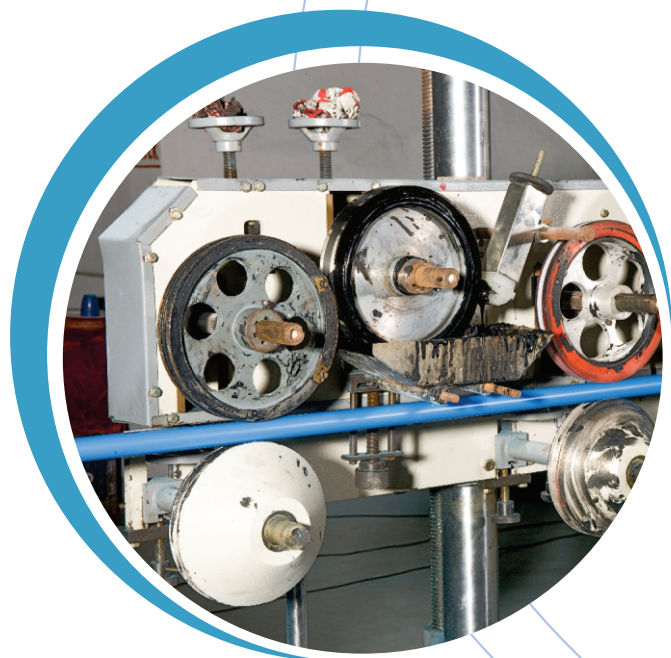


Today Ori-Plast has become the acknowledged leader across a gamut of advanced piping applications. In recent times customer needs have become more discerning than ever before, but the company has stayed focused on the trends and needs of the customers. One can see the company's readiness to change in the way it is streamlining operations, rethinking the basics, serving customers better with innovative new product developments, strengthening competitiveness, and providing timely solutions to pressing problems.

These are only a few of the many reasons for trusting Ori-Plast to provide you with the most suitable solutions for your varied requirements.



With dedication, commitment and technological finesse for doing things in a distinct manner, Ori-Plast has been able to achieve credibility across its ventures, which has created value for customers, end-users and all other stake holders.



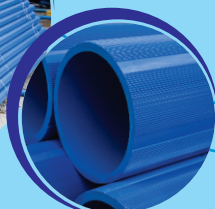
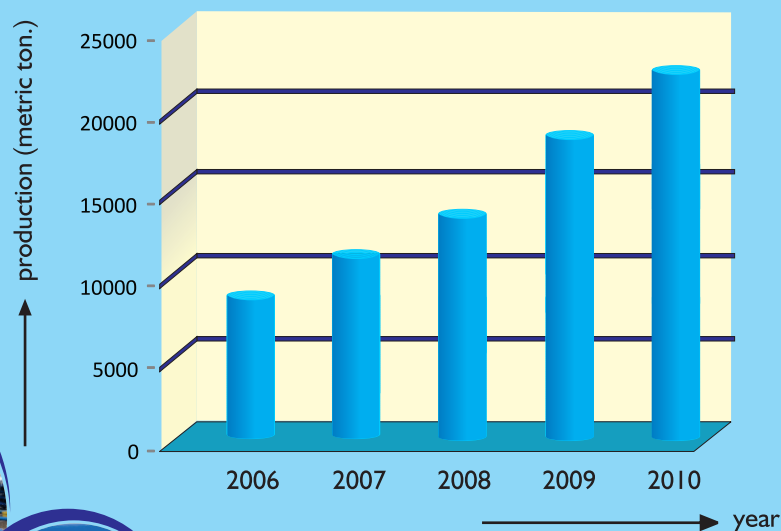


Ori-Plast manufactures a wide range of uPVC, cPVC, SWR and Bore-well pipes and fittings confirming to various standards – namely BIS, BS, DIN and ISO to name a few.

It now caters to every conceivable application – from drinking water supply to tube-well systems, from transportation of pulverized solids to cable ducting – in a wide variety of pipe sizes. Plus, it also offers an extensive range of Polyethylene Pipes (HDPE & MDPE) and fittings.

Complete Piping Solutions

Ori-Plast has earned the love and trust of its customers, and this has always acted as a catalyst that fires our commitment towards achieving still greater heights of perfection and excellence.



PVC (Poly Vinyl Chloride) plastics are produced by combining or mixing PVC resin (a petrochemical product) with various types of stabilizers, lubricants, pigments, fillers and processing aids. In order to make it flexible, plasticizers are added. The amount and type of these additives can be varied to produce different types of PVC with properties customized for specific applications.

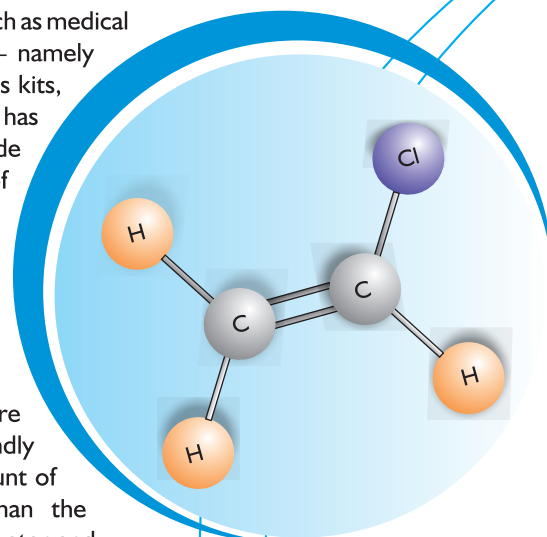
Why PVC ?

Fact File

PVC is the preferred material worldwide for making even sensitive items such as medical products. It is used in the manufacture of disposable medical devices – namely catheter and tubing of all kinds, I.V. and blood sets, surgical gloves, dialysis kits, urinary drainage and incontinence systems, etc. It has been found that blood has a longer shelf-life in a PVC bag than in a glass bottle. To highlight the magnitude of these applications, it is worthwhile to mention that the production of catheters alone, in the world, is more than 700 million units per year.

The use of PVC has been scientifically studied in comparison to other more traditional materials and it was found that PVC is an environment friendly material and uses minimal energy and resource and generates least amount of pollutants. For example, a PVC pipe consumes far less energy than the corresponding, iron pipe to produce, transport and install. The total air, water and sound pollution created is by far, much lower than other materials. Virtually every aspect of PVC pipes, from manufacturing to transportation to end use performance, offers environmental and safety benefits for mankind.

To reiterate, PVC is one of the most thoroughly researched product over the last 60 years and has proven to be safe and economical which reflects in its worldwide acceptance and usage . Ori-Plast, is committed to quality and is providing the society with safe, hygienic, economic and valuable PVC products.



PVC can be formulated to produce

Rigid PVC - Un-Plasticised PVC (commonly known as uPVC) Flexible PVC (commonly known as Plasticised PVC) Cellular PVC (commonly known as foamed PVC)



Some Typical properties of PVC at 23° C

Property	Value
Specific Gravity	1.40 minimum
Tensile Strength (psi)	7,000 minimum
Tensile Modules of Elasticity (psi)	400,000 minimum
Comprehensive Strength (psi)	9,000
Impact Strength, Izod, ft.lb./inch notch	0.65
Deflection Temp, under load (264 psi) °F	158 minimum
Coefficient of Linear Expansion in/in °F	3.0 x 10.5

PVC at a glance

uPVC pipes as assets for industries



Agriculture

Building Construction

Paper Industry

Sugar Industry

Chemical Industry

Telecommunication, etc.

The goodwill and trust Ori-Plast has earned is a result of meticulous quality control of its products and a customer service network that is par excellence. Over the last three decades every aspect of Ori-Plast headed in one direction -i.e. BETTER.

Uses of uPVC pipes

Potable water lines

Cooling water lines

Sewerage and drainage

Waste & rain water

Tube wells, even in hard rock and alluvial soils

Cable ducting

Sprinkler irrigation

A Fact

The average temperature of fluids to be carried in these pipes should not exceed 65°C. PVC is a synthetic material, light in weight, impermeable to fluids and gases and resistant to a wide range of chemicals and is electrically resistant. It does not support combustion.

Technical Data

Properties at 23°C

GENERAL

Specific gravity	1.35 to 1.45
Water absorption in 24 hrs.	Less than 4mg / cm ² (0.10 %)
Flammability	Will not support combustion; self-extinguishing.

THERMAL

Softening point (Vicat)	176°F (80°C)
Heat distortion temperature at	75°C(at 18.5kg/cm ²)
Specific heat	0.25cal/°C
Co-efficient of heat conductivity	0.14Kcal/kg/°C
Thermal conductivity	4 x 10 ⁴ cal / hr / cm ² / °C / cm
Co-efficient of linear expansion	5 to 8.5 x 10 ⁻⁵ mm/°C
Expansion on 6mtrs. Length (approx.)	3.2mm/WC

MECHANICAL

Elongation at break	More than 80 %
Modulus of rigidity	1.12x10 ⁴ kgf/cm ²
Modulus of elasticity	2600 - 3000 m / mm ²
Ultimate tensile strength	45-55 n / mm ²
Maximum bending stress	21 kg / cm ²
Flexural strength	650 - 700 kgf / cm ²
Impact strength 20 °C	1.0-2.0 ft-lb/inch of notch
°C	0.5 -1.0 ft-lb / inch of notch
Comprehensive strength	600-700 kgf/cm ²

ELECTRICAL

Dielectric strength	40kv/mm : Non conductor. Should not be used for earthing purposes.
Volume resistance	10-5 Ohm/cm

FLOW CHARACTERISTICS

Hazen Williams coefficient	135-150. Remains unchanged with use, unlike G.I- pipes. 0.00001
Colebrook coefficient	

CHEMICAL PROPERTIES

uPVC has excellent resistance to acids, alkalis, salts in all concentrations and can handle water with a pH value of 2 to 12. It can resist all kinds of acids used for well regeneration.



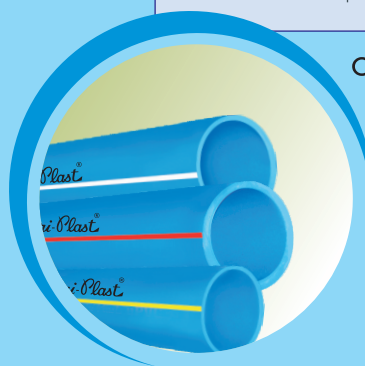


The use of uPVC in the production of pipes and related products is one of the best things to happen to our world and our lives. PVC material and technology has been able to fulfill the basic needs of daily life providing a clean, safe and economic solution to all our problems like corrosion, health hazards, transportation cost, breakage, short and uncertain life span, and many others that we faced while using other conventional pipes such as steel, cast iron, asbestos, etc.

Comparison of uPVC pipes with others

Advantages of PVC

	Rigid PVC Pipes	Asbestos Cement Pressure Pipes	Galvanised Iron Pipes (G.I)	Cast Iron Pipes (C.I)	Economic Advantages of PVC Pipes
Weight	Light, pipes weight 1/6th of CI & GI and 1/5th of A.C.	Heavy	Heavy	Heavy	Saving in handling & transportation costs. Installation is quicker.
Inside Surface	"Mirror-like" smooth finish	Smooth	Rough	Rough	Less factional loss, saving in pumping costs. (Fuel saving)
Co-efficient of flow ('C' value)	150-Remains constant throughout its life	140	100-Decrease over a period of use	100-for new pipe 40-50 after 5 to 10 years	Better flow. More discharge of water
Resistance to corrosion	Good resistance to even strong acids alkalis or salt solutions	Good	Poor	Poor	Longer life of the pipe. low maintenance & replacement costs
Formation of deposits	Absolutely no formation of deposits. Pipe bore remains constant throughout its life	No formation of deposits	Formation of deposits leading to reduction in pipe bore	Formation of deposits leading to reduction in pipe bore	Uniform flow of water throughout. No danger of contamination due to deposits
Installation technique	Very quick & simple	Time consuming	Involves threading	Cumbersome & time consuming	Reduces installation cost and time
Material cost	Lowest	High	High	High	Greater saving in materials cost.



Ori-Plast uPVC-Pipes have a longer life than other conventional materials. It is not subject to electrolytic attacks or corrosion, which reduces service life. uPVC is almost completely inert to chemical attacks. Sulphates and chlorine, which affect asbestos and cement pipes, do not attack PVC.

Ori-Plast uPVC has firmly established itself as a sound product offering a whole lot of benefits over traditional products. Ori-Plast uPVC offers major advantages in installation economics, operating and significant reduction in maintenance costs when compared with other pipe materials.

CHEMICAL RESISTANCE Inert to attack by strong acids, alkalis, salt solutions, alcohol, and many other chemicals.

STRENGTH Highly resilient, tough and durable products that have high tensile and high impact strength. They can withstand surprisingly high pressure for long periods.

FIRE RESISTANCE Self-extinguishing and arid, will not support combustion.

Other advantages of PVC

INTERNAL CORROSION RESISTANCE Provide the needed chemical resistance, while eliminating the disadvantages of special metals lined piping, glass, wood, ceramics or other special corrosion-resisting materials which had to be used earlier.

EXTERNAL CORROSION RESISTANCE Industrial fumes, humidity, salt water, weather, atmospheric or underground conditions, regardless of type of soil or moisture encountered, cannot harm uPVC pipe. Scratches or surface abrasions do not provide points, which corrosive elements might attack.

IMMUNITY TO GALVANIC OR ELECTROLYTIC ATTACK Inherently immune to galvanic or electrolytic action. They can be used underground, underwater, in the presence of metals, and can be connected to other materials, or used as an insulator between them.

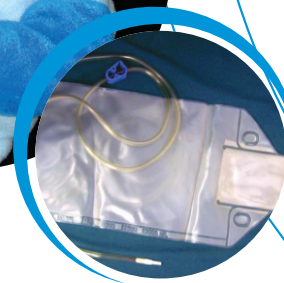
FREEDOM FROM TOXICITY, ODOURS, TASTES Ori-Plast uPVC pipes are non-toxic, odorless and tasteless.

CORROSION FREE In other pipe materials, slight corrosion may occur.

The corroded particles may contaminate the pipe fluid, complicating further processing, or causing bad taste, maleficent odors or discoloration. This is particularly undesirable when the pipe fluid is for domestic consumption. With uPVC there are no corrosive by-products, therefore, no contamination of the pipe fluid.

LOW FRICTION LOSS Smooth interior surface unlike other materials ensures low friction loss and high flow rates, and since Ori-Plast uPVC will not rust, pit, scale or corrode the high flow rates will be maintained throughout the life of the piping system.

LOW THERMAL CONDUCTIVITY Ori-Plast uPVC pipes have lower thermal conductivity than metal pipes. Therefore, pipe fluids maintain a more constant temperature. In most cases, pipe insulation is not required.





uPVC SWR Drainage Systems

Ori-Plast has understood your need for total dependability on uPVC and thus has taken care to provide a complete range of products so that you need not have to compromise either in quality or availability of pipes or fittings. Ori-Plast has set itself apart both in terms of quality and range. Ori-Plast, manufactures the best quality uPVC pipes and an entire range of fittings, to meet your every need. Ori-Plast is the only company manufacturing uPVC pipes & fittings ranging from 16mm to 630 mm OD.

Recognising the potential of PVC pipes being already used in diverse applications. Ori-Plast introduced a long-term solution-Flowel, for drainage & sewerage applications. The SWR range is

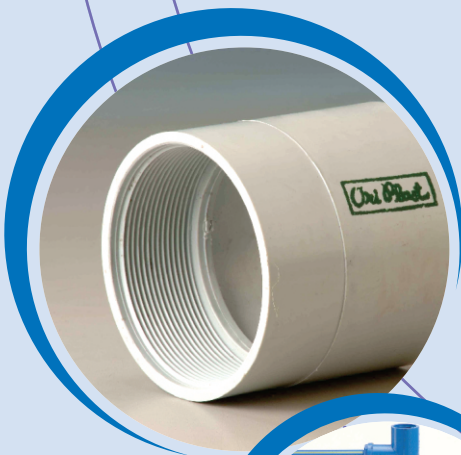
For your every need...

ideal for both residential and commercial premises of all scales and sizes due to its superior properties as compared to conventional systems such as G.I. and asbestos.

uPVC Plumbing Pipes & Fittings as per ASTM : DI785

Ori-plast uPVC pipes are the fore-runners of water distribution applications to users—both in residential as well as commercial premises. Ideal for supply of safe drinking water owing to its superiority over conventional material.

The reluctance of using solvent cement jointing techniques by plumbing community in the country prompted Ori-Plast to develop threaded PVC pipes as per ASTM to match Standard GI Pipe threads, as early as 1986.



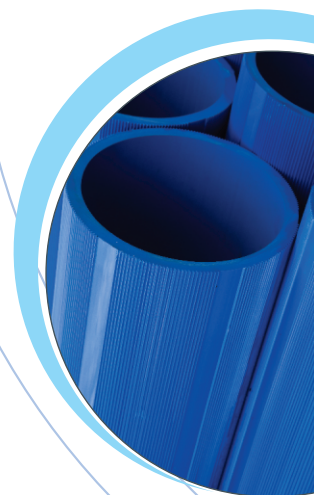
uPVC Pipes & Fittings for Agricultural purposes - as per IS : 4985/2000

Introduced as a cost-effective solution for the Indian farming community, IS: 4985 uPVC pipes account for more than half the production of the Indian plastic pipes industry. Versatile, they are today also used for other applications like sanitation, sewerage, rainwater, bore wells, industrial applications such as sugar and fertilizer industries, reusable applications, cable ducting, etc.



uPVC Castings & Screen Pipes for Borewells - as per IS : 12818

Ori-Plast well castings and screens made of uPVC are ideal for application like bore well/tube well. While lighter rigs and smaller crews suffice for drilling, they are more flexible than most metallic castings and capable of performing satisfactorily even at depths in excess of 2000 ft.





Ori-Plast, backed by a lot of experience in the field or bore well and deepwell fields, has taken advantage of its experience in pipe extrusion to add to its range of products. Direct Action Hand Pump, where attention is given for bore – sealing and unlike suction pump no priming is required and is capable of lifting uncontaminated (i.e. free from bacteria) ground water from geological strata upto 15 metres deep.

Direct Action Hand Pump

Technical aspect of DAPH assembly

DAHAP comprises pump body and cylinder assembly being connected by the Rising Main. The Rising Main acts as Upper well Casting. Cylinder assembly is at the bottom of the Rising Main and connected with top of lower well casting. The top of the lower well casting is solvent welded to the cylinder bottom through reducer bell connector. The lower end of this is attached to the screen. The well casting and well screen are made out of Ori-Plast uPVC pipes. The screens are made from uPVC ribbed pipes for maximum open area taking into consideration minimum penetration of sand. While viewing this assembly the most exceptional unit is the Cylinder Assembly, which consists of cylinder pipe foot valve assembly, piston assembly and piston rod. The piston moves up and down against the cylinder body. This upward and downward movement and the valve lifts water in upward direction with each stroke whereby discharge is possible both ways i.e in upward as well as downward strokes.



Attraction of the system

The attraction of the assembly is the Pump Rod Assembly. The Pump Rod Assembly is connected between pump handle and piston in the cylinder. The Pump Rod Assembly is light in weight and it has a high-displacement capacity that implies less effort for upward stroke due to buoyancy. The total system has the following advantages:

1. It is a single set solution – being interconnected
2. The parts are made up of plastic and rubber.

The material of construction being non-corrosive implies no dimensional changes during the service period.

More....

Why this new addition

Conventional of dealing with corrosion which is mainly due to reasons like corrosive water, Cl_2 / CO_3 and bacteria, was eliminated, while introducing whole pump assembly and riser pipes as non-corrosive material i.e PVC pipes. The smooth bore of Ori-Plast uPVC pipes discourage bacterial growth and the other accessories used are satisfactorily protected steel pipes and items galvanized international standards suitable for the corrosive water.

In addition to this, DAHP of Ori-Plast is of sturdy variety for use in rural areas overcoming the difficulties occurring with conventional hand pumps like breaking of nuts & bolts, bucket, sheet valve, plunger rod which requires periodic replacement. To conclude we can say Ori-plast DAHP is a strong pump for a longer maintenance free life.

When a submersible pump is directly connected with uPVC pipes having ordinary threads there is a chance of unscrewing of the pump due to torque. Also ordinary threads made on PVC pipes become smoother and cannot bear the tensile load of the system for longer period.

To prevent this, we recommend the use of uPVC submersible pump pipes which are manufactured as per American Standard (ASTM-D-1785) a standard as strict as any other in the World. The pipes are available from 1" to 4" diameters with specially designed square threads for withstanding large tensile load pipes are supplied in 3 meters long pc with one end male and the other end female threaded with rubber gaskets.





Column Pipe

Advantages

SPECIALLY DESIGNED SQUARE THREADS

Pipes are provided with this type of threads for easy fitment, refitment, longer life thus providing a very high tensile load capacity.

SPECIAL DESIGNED GASKETS

Every length of pipe is provided with a rubber gasket for 100 % leak proof joints and absorb vibration in pump and pipe – line system resulting in extended service life of motor and pump bearing.

SPECIAL CAST IRON ADAPTORS

The adaptors are provided with metric threads at one end for joining with submersible pump and other end with square threads for joining with uPVC riser main pipes.

CORROSION RESISTANT

uPVC is non-corrosive and hence constant contact with water does not deteriorate the material.

HIGH FLOW RATE

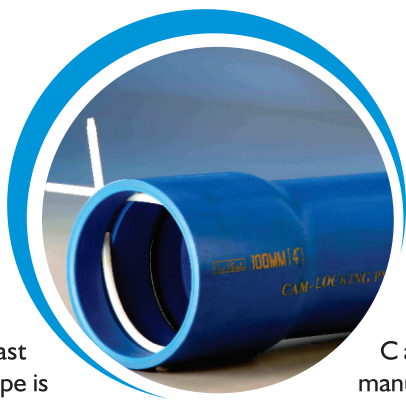
The internal smooth surface gives excellent flow properties while remains uniform throughout the life.

LIGHT WEIGHT

Hence, transportation and handling is simple and more convenient.

ECONOMICAL

The system is much more economical than G.I. Pipes.



Ori-Plast PVC pipe is a special type Cam-locking manufactured from PVC compound that contains impact modifiers and UV stabilizers. These modifiers and stabilizers provide higher impact strength over an extended period of time allowing usage in exposed surface applications as well as under ground or buried

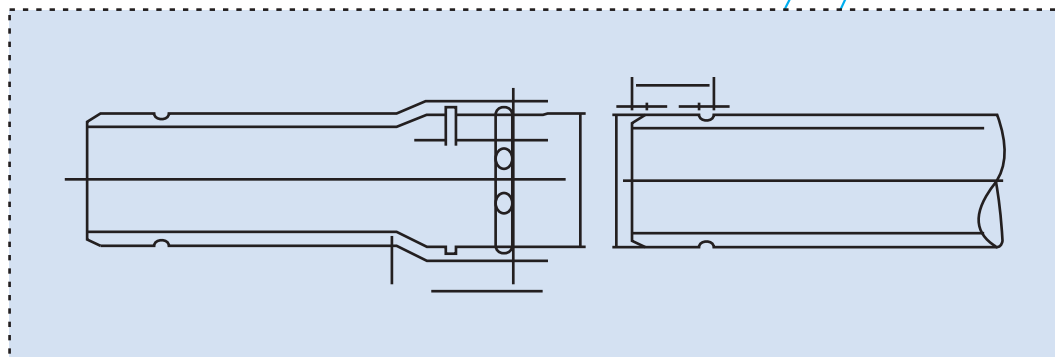
applications. Ori-Plast Cam-locking uPVC pipes provide a restrained joint by utilising precision machined grooves on the pipe at one end and another groove in the bell portion of the other end which when aligned allow a spline to be inserted resulting in a fully circumferential restrained joint that locks the pipe properly. A flexible elastomeric seal ('O' ring) in the bell portion of the pipe provides a hydraulic seal.

Cam-locking PVC Pipes

Specifications

Ori-Plast Cam-locking PVC pipes meet the requirements of the following ASTM (American Society for Testing Materials) specifications :

ASTMD 1784
ASTMD 1785
ASTM D 2672
ASTM D 256
ASTM D 635
ASTM D 638
ASTM D 648



Advantages

- ▶ Ori-Plast Cam-Locking uPVC pipe is fast simple, reliable and requires no solvent for joining of the pipe.
- ▶ The joint can be easily disassembled allowing for system changes and re-use of entire system in another place.
- ▶ Time for installation is comparatively less than other conventional systems.
- ▶ Thrust blocking arrangement is not required since there is allowance for accommodation of movement.
- ▶ Alignment while installation is better than other systems.

Applications

1. Above the ground pressure lines.
2. Buried pressure lines.
3. Slurry lines.
4. Industrial piping.

Installation



uPVC pipes when for water conveyance of any kind are generally buried in trenches underground, in most of the cases too they are laid underground. But depending upon specific requirements they can be laid over the ground, alongside walls or concealed inside the walls. When they are laid underground, the trench should be free of stones and other sharp and hard objects. Supports or champs should be appropriately provided, as mentioned below, when laying them over-ground. The support spacing may be increased by 50% for vertical runs.

Joining method

Solvent Cementing	Flanged Joint	Heat Fusion	Service Connections
Almost exclusively used for normal water lines. Check the pipe and fitting for satisfactory "Interference Fit" i.e. they are neither too loose nor too tight. Pipe loose in the socket may not bond properly. The allowable tolerance in the pipe dimensions assure a forced fit and when solvent is applied, joining the pipes, thus assuring a chemical fusion equal in strength to the pipe.	These are generally used for joining uPVC pipes of larger diameters to valves or metallic pipes. The joint is made by the compression of a gasket set in the face of the flange. A flange on a uPVC pipe can be made by flaring up the end of the uPVC pipe or by solvent cementing or moulded tailpiece on the uPVC pipe. Bolts and nuts then tighten the two flanged ends.	uPVC pipes are joined by heat fusion method when the pipes are used for carrying liquids and gases that will react with the solvent cement and destroy it causing leakage in the line e.g. acid lines. In this method the pipe ends to be joined are fused using a hot air jet. When the desired degree of fusion of the ends is achieved, the ends are aligned and pressed. After a few minutes the material sets and the joint is ready. Care should be taken to align the ends of the pipes properly.	Both plastic and metal saddles are available for making service connection from larger bore pipes (63mm and above). The saddle consists of two, half rounded sections held together in position by two 'slip-on' type wedge or bolts and nuts. A seal is formed between the saddle and the pipe by inserting a rubber 'O' ring which is compressed between a die pipe and lower surface of the upper section. The service connection is taken from a boss on the upper section. A conventional tool like a hand drill or an auger can be used for making the opening in the pipe for the service connection.



More on installation

THREADED JOINTS

These types of joint are used for plumbing Pipes and well casting pipes.

These joints can be used to join PVC pipes with metal pipes and fittings if required .

The die should be clean and thread should be made in one pass.

While installing threaded joint use of Teflon tape is a must. This will prevent the damage to threads and avoid leakage.

Time consumed in PVC pipe installation for plumbing is 30% quicker than metal pipes.

No special equipment is required to join PVC threaded pipes.

Use or cushion between jaws of the pipe wrench while holding the pipe is advisable in order to to avoid damage to the pipe.

RUBBER RING JOINTS

This joint is a flexible joint.

This joint can be opened and closed whenever required.

This joint has an internal socket and spigot with elastomeric sealing ring for flexibility.

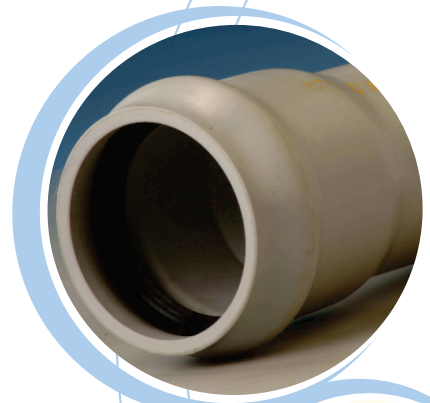
This joint allows for axial contraction and expansion as well as angular deflection.

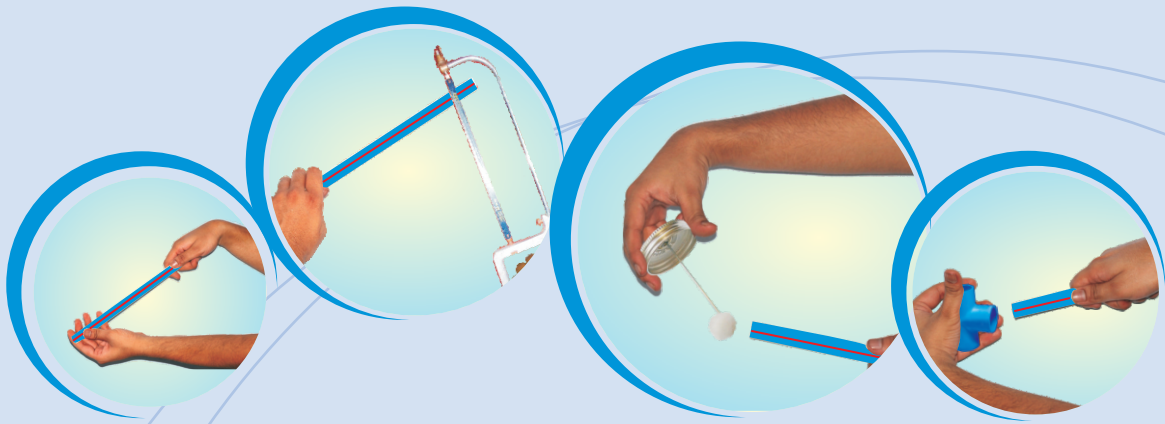
No curing period is required.

Pipeline can be used immediately after laying.

No need for separate rings for different pressure ratings.

The rings made of synthetic elastomer have a life of more than 100 years.





Solvent Cement

- ▶ The Solvent shall be Thixotropic and consist substantially of solvents that will swell unplasticised PVC resin and stabilizer. Dibutyl Tin maleate is used as Stabiliser for preventing discoloration and for maintaining shelf stability of the cement. The PVC resin content is more than 10%

Properties

- ▶ The viscosity of the solvent is more than 90 (Cp)
- ▶ The average shear strength is more than 1.7 Mpa after 2 hours curing time
- ▶ The hydrostatic burst strength more than 2.8 Mpa after 2 hours curing time.



Precaution

- ▶ Solvent Cement is highly inflammable and should not be exposed to naked flame.
- ▶ The Cement should always be kept in a cool dry place and the lid of the container must be tightly screwed when not in use to prevent evaporation





Handling and storage

uPVC pipes are light in weight and can be handled very easily. Proper care should still be taken to avoid damage to the pipes.

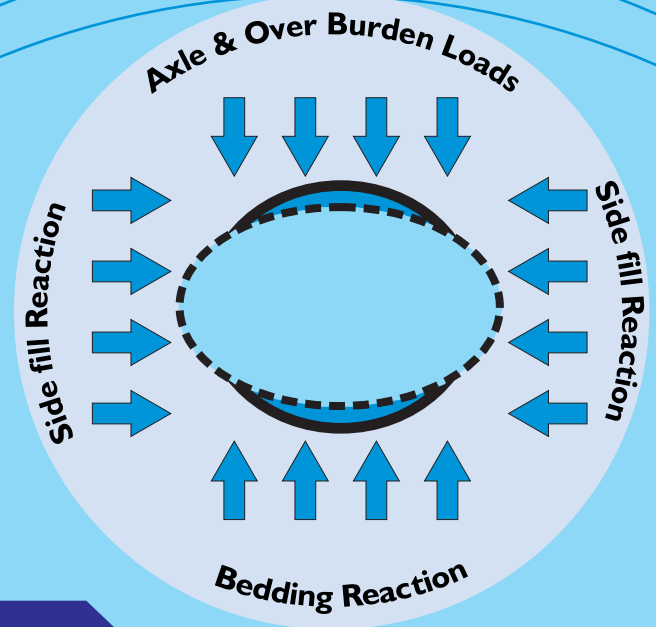
Handling and Storage

Storage

The pipes must be stored on an even surface to avoid sagging and bending. The pipes should be kept in a criss-cross manner and the height of each stack should not exceed 1.5 meters. But where the ambient temperature exceeds 30°C, the height of each stack should be 0.5 meters. The pipes should not be stored under direct sunlight for long periods. They should be stored under a shade or otherwise cover it with straw or tarpaulin to protect it from direct sunlight and excessive heat.



In case of underground installation of flexible pipes including uPVC pipes, the pipes are subjected to the following forces:



Underground Installation

uPVC Pipes

The lateral expansion, as shown above, mobilizes passive resistance in the soil which, in combination the pipe's inherent stiffness, resists further lateral expansion and consequently further vertical deflection.

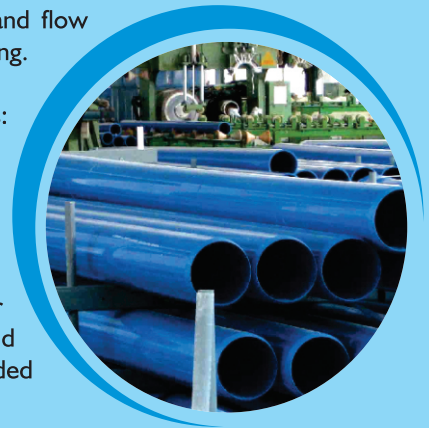
The extent of deflection and the stress depends not only on the pipe's properties but also on the soil properties. The extent of deflection and stress must be kept safely within uPVC or flexible pipe's performance limits. Excessive deflection may cause loss of stability and flow restriction, while excessive compressive stress may cause crushing or ring buckling.

Thus factors affecting the performance of the pipeline are summarized as follows:

(a) Pipe Stiffness (b) Soil Stiffness (c) Load on the Pipe

TRENCH WIDTH

With HDPE pipe widening of the trench will generally not cause a loading greater than the load of the prism or the vertical column of soil. Trench width in firm and stable ground is determined solely on practical consideration. Recommended maximum trench widths in stable ground are given below:



OD of the pipe
in mm

Maximum Trench Width
in mm

From 110 to 400
From 450 to 630

Pipe OD + 300
Pipe OD + 450

TRENCH BOTTOM

The trench bottom should be constructed to provide a firm, stable and uniform support for the full length of the pipeline. A stable bedding minimizes bending of the pipe along its horizontal axis and supports the embedded pipe. There should not be any sharp objects or large rocks or stones larger than 20mm below the pipeline. A minimum bedding thickness of 100 – 150mm under the pipeline should be provided.

SOIL

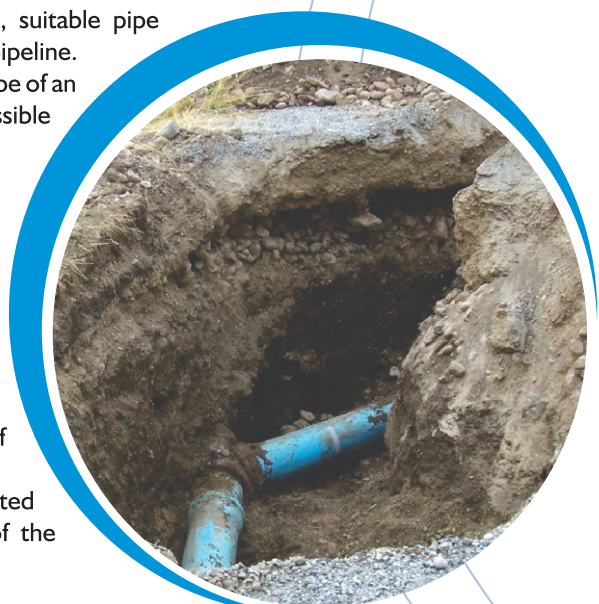
The type of soil and amount of compaction of the pipe embedded directly affect the performance of the pipe. With proper embedded soil and compaction, greater burial depths are possible and higher external pressure capability and lesser pipe deflection will occur.

MINIMUM COVER

- (a) A minimum cover of 0.9 to 1.0m is recommended in case embedded under roads with general and truck traffic.
- (b) A minimum cover of 1.8 to 2.0m is recommended in case where heavy dynamic loads are expected. We are aware that in case of pipe laid below 2.0m, it is not affected significantly by dynamic load.
- (c) In case it is not possible for deep burial of the pipeline, suitable pipe protective cover is to be provided to prevent damage to the pipeline.
- (d) For high static and/or surcharge loads, it is advisable to use pipe of an appropriate stiffness to ensure deformation within permissible limit.

BACK FILLING

- (a) Filling and compaction of the sidefill or haunching layers.
- (b) Side sheeting is to be removed partially before sidefill in order to avoid gaps between the pipe and trench wall.
- (c) Pipe joints are to be left free of backfill for inspection
- (d) Subsequent layers of backfill are to be placed over the pipe and compacted suitably at least 150mm above the crown of the pipe.
- (e) Lastly the final backfill materials are to be replaced in compacted layers of minimum 250mm thickness and upto the top of the trench.





Ori-Plast has a committed Research & Development team dedicated to achieve the highest level of efficiency and excellence. The R&D department is equipped with the latest facilities, know-how and technology.

The R&D wing boasts of a steady and progressive product development system and to back it up is an extensive range of the latest testing equipment that ensures the most optimal standardized quality in every batch.

Rigid quality control at every stage from raw material inspection to finished goods inspection and testing and an ongoing commitment to innovation and development ensures that Ori-Plast's products maintain a uniformly high standard of excellence. Export Promotion Award ten times in succession from the Govt. of Orissa and five times from the Plastics and Linoleum Export Promotion Council along with numerous other awards and recognition from various other organizations speak of Ori-Plast's primary objective – Quality. Ori-Plast is an ISO 9001:2000 company.

Research & Development

Raw material testing

For all materials, Test Certificates are received from the raw materials manufacturers. In case of various national and international standards e.g. ISO, DIN, ASTM etc, the compounded raw materials are formulated and tested as per the specified parameters.

All Ori-Plast products are tested in the company laboratory before release. Sometimes, the purchaser appoints an independent inspecting authority, generally called third party inspecting authority, to inspect the lot before the approval and issue of signed Test Certificates. Occasionally the inspecting authorities draw samples and send it to a Government Laboratory for testing.







ISO 9001:2000 COMPANY

www.oriplast.com

REGISTERED OFFICE

40, Strand Road
3rd Floor, Room No: 9
Kolkata- 700 001
Phone : +91-33-2243 3396/97
Fax : +91-33-2243 2395
Email : contactus@oriplast.com

CORPORATE OFFICE

9A, Wood Street,
Kolkata – 700 016
Phone : +91-33-2283 9054-58
Fax : +91-33-2283 9059
Email : corporate@oriplast.com
sales@oriplast.com

DELHI BRANCH OFFICE

Unit No. 1402, R G Trade Tower
B7, Netaji Subhash Place
Wazirpur District Center
Pitampura, New Delhi – 110 034
Ph : +91-11-2735 2164/65
Tele Fax: +91-11-4370 2640
Email : northsales@oriplast.com

HYDERABAD BRANCH OFFICE

Flat No. 6A, 6th Floor, Amrutha Estate
Dhruvatar Apartment, Somajiguda
Hyderabad- 500 082 (AP)
Ph : +91-40-6598 3033
Fax : +91-40-2337 5618
Email : hyderabad@oriplast.com

C & F AGENT, CUTTACK

M/s. Aditya Logistic
202/C, P.O. : Naya Bazar
P.S. : Chauliaganj
Cuttack – 753 004. Orissa
Ph. : +91-671-244 0419, 320 2318
Email : cuttackdepot@oriplast.com

BHUBANESWAR BRANCH OFFICE

Plot No : 737 (P)
Rath Bhawan, 3rd floor (East), Room No : 4
Jaydev Vihar
P.O. : - RRL
Bhubaneswar – 751 018
Tele Fax : +91- 674-236 1336

JAIPUR BRANCH OFFICE

Plot No : K53, Flat No. G3
Kishan Nagar (Shyam Nagar)
Jaipur – 302 019 (Rajasthan)
Telefax : +91-141-229 7111
Email : appljpr@yahoo.in

BALASORE WORKS

O. T. Road, P.O. & Dist – Balasore
Orissa – 756 001
Ph. : - +91-6782-26 4551-53
Fax : - +91-6782-26 2551
Email : works@oriplast.com

ADVENTEC POLYMERS PVT. LTD.

F-188(K & L), RIICO Industrial Area, Ph – II Behror, Dist – Alwar,
Rajasthan – 301 701
Ph.: +91-1494-22 0064 / 2396 Fax : +91-1494-22 0482
Email : pkdave@oriplast.com, adventec@datainfosys.net

PARAM POLYMERS PRIVATE LIMITED

Works : Khadinan, Bagnan, Howrah – 711,303 (WB)
Ph. : +91-3214-21 5949, Fax : +91-3214-26 6161
Email: contactus@parampolymers.com