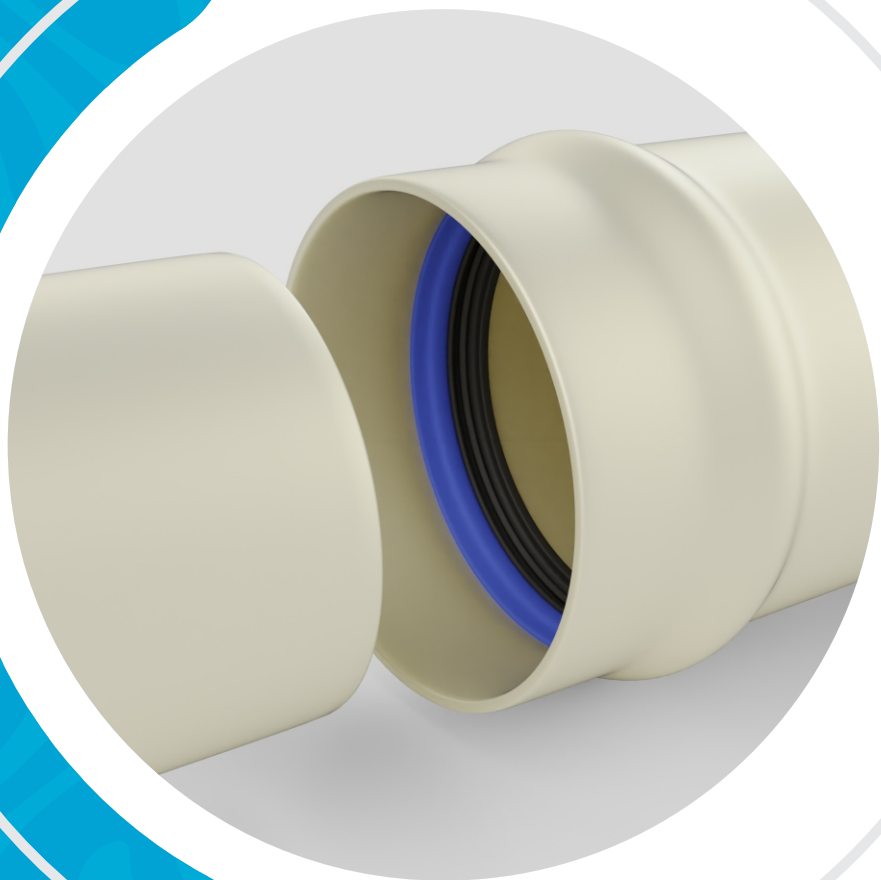
CATALOGUE
January, 2025

prayag®
PIPES & FITTINGS

Quality Bemisaal
Likh ke le lo



PVC-O PIPES

IS 16647:2017

CM/L 8400261512

ISO

PVC-O PIPES

Irrigation and High-pressure water Distribution Systems

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prayag®
PIPES & FITTINGS

ABOUT US

After successfully leading the market for last more than 3 decades, Prayag adds another feather in its cap by introducing a complete range of PVC-O Pipes for the Indian market.

Manufactured in one of the most modern ISO certified plant in Bhiwadi, Rajasthan with an installed capacity of pipes system 36000 MT, these pipes are produced with the basic core values on which Prayag has been operating since its inception i.e. Innovation, Technology, Quality and Affordability.

These fundamentals have provided the positioning Prayag holds in the market today, for all the product segments it operates in.



We are Prayag, a company with a vision to produce products that are above the extraordinary. Re-imagining to create new innovations in product design and development that has been the hallmark of every market segment that we have entered into.

With our product range and network expanding each day, we plan to establish ourselves among the top 5 brands in business segment.

Always delivering meticulously crafted products, produced to perfection in its 4 most modern state-of-the-art plants at Bhiwadi & Kaharani (Rajasthan), West Bengal and Varanasi (UP).

Backed by a strong dedicated team of experts from each segment who guide us to build our infrastructure using best manufacturing practices and then create contemporary products, conforming to international standards, of course suited best for the Indian market. Producing flawless components has become our habit that is why we never compromise on our inputs for manufacturing each piece, that lead to longer service life and extremely low maintenance.

For us at Prayag, it's been a journey of accomplishments and learning, a life full of life and fulfilment.

Winning millions of hearts since 1986


CP Bath Fitting


P.T.M.T.Bath Fittings


Sanitaryware



Storage Tanks


Plumbing Pipes & Fittings


Water Heaters


Hardware


Kitchen Sinks

9 Product Categories

4500+ SKUs

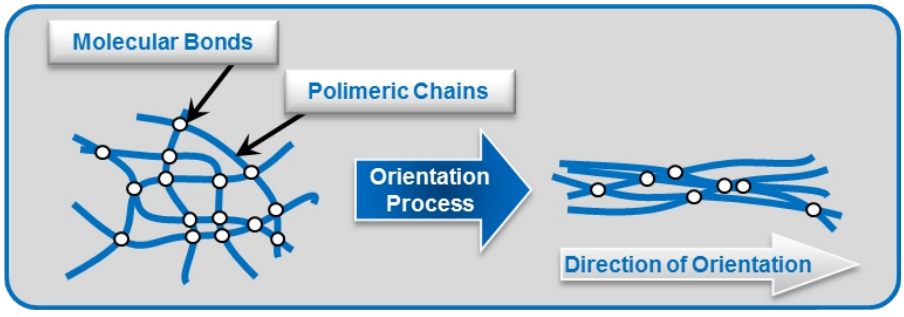
15000+ Retail Outlets

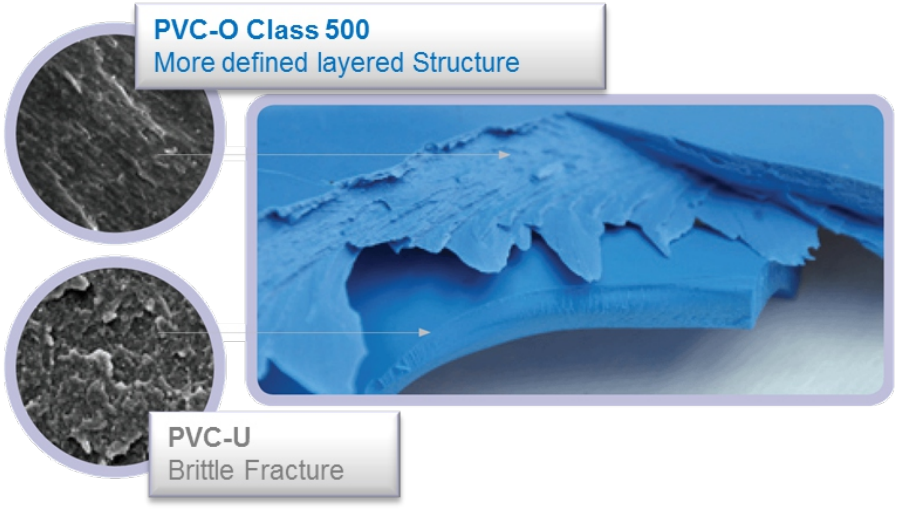
Prayag PVC-O Pressure Pipe Systems

PVC molecules are randomly arranged. The polymer molecules are oriented in the same direction with material is being produced at suitable pressure, temperature, and speed. This process is called the molecular orientation. As a result, the new molecular structure can be seen even with the naked eye. The molecular orientation process improves all mechanical properties of PVC.



MOLECULAR ORIENTATION PROCESS





PVC-O Production line

Prayag PVC-O Pipe Systems are produced by Prayag Polymers Pvt. Ltd. for use in pressurised water transport lines according to BIS standards.





Oriented Polyvinyl Chloride (PVC-O) pipes are used for various different applications.

WATER SUPPLY

Prayag PVC-O pipes are used in high-pressure water distribution systems for residential and commercial buildings.

IRRIGATION

Prayag PVC-O pipes are used for irrigation piping, including water transfer to tanks and reservoirs, and pipelines for irrigated land.

FIRE HYDRANT LINE

Prayag PVC-O pipes are used in fire Hydrant lines.

INDUSTRIAL

Prayag PVC-O pipes are used in industrial applications, such as food processing and pharmaceuticals, where strict water safety regulations apply.



PRODUCT RANGE

Prayag pipes (PVC-O) are manufactured from MRS500 Class and design coefficient 1.4 or 1.6 material as per the BIS Standard. These pipes are produced in PN12.5, PN16, 20 and PN25 pressure with the diameter ranging from 90mm to 400mm. Though these pipes are integrated but it is also possible to produce them without a socket. Available in the length from 6 meter to 12 meter, Prayag PVC-O pipes can be used with all types of socketed plastic and ductile iron pipes.

WALL THICKNESS FOR MATERIAL CLASS 500/C1.4				
	CLASS 500/C=1.4 WALL THICKNESS(mm)			
	NOMINAL PRESSURE, PN			
NOMINAL DIAMETER(mm)	12.5	16	20	25
90	1.7	2.1	2.6	3.3
110	2.0	2.6	3.2	4.0
125	2.3	2.9	3.6	4.5
140	2.6	3.2	4.0	5.1
160	2.9	3.7	4.6	5.8
180	3.3	4.2	5.2	6.5
200	3.6	4.6	5.7	7.2
225	4.1	5.2	6.4	8.1
250	4.5	5.8	7.2	9.0
280	5.1	6.4	8.0	10.1
315	5.7	7.2	9.0	11.4
355	6.4	8.2	10.1	12.8
400	7.2	9.2	11.4	14.4

TECHNICAL PROPERTIES

The superior and better physical and mechanical properties of Prayag PVC-O pipes are because of their molecular orientation process whereas the improved chemical properties are primarily because of its raw material.

PVC-O pipes have many technical advantages over standard pipes. While providing high impact strength compared to U-PVC, these pipes also have an edge over HDPE100 pipes due to their larger internal flow area.

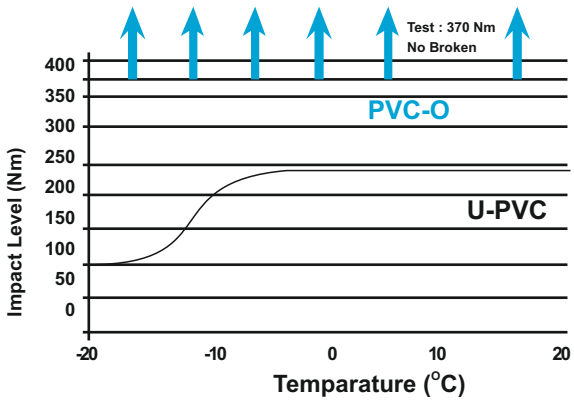
PRODUCT ADVANTAGES	
Mechanical Advantages	**High impact resistance**
	Ductility (Flexibility)
	High Long Term Hydrostatic Strength
	Low crack propagation rate
Hydraulic Advantages	Large inner flow area
	Resistance to the effect of water hammer
	Flexible and sealed connection
	Low friction and pressure loss
Application Advantages	**Lightweight and easy to carry**
	Socketed connections-fast installation
	Easy bedding and backfilling

MECHANICAL ADVANTAGES

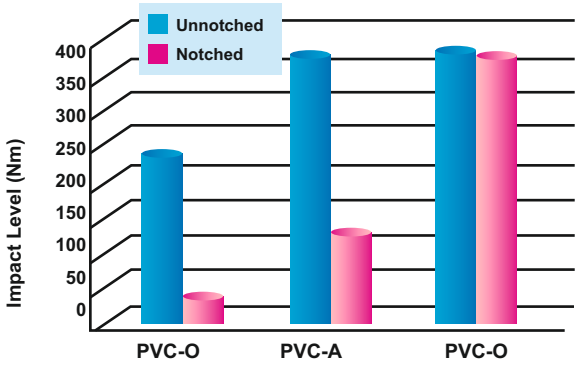
High Impact Resistance

In common use these pipes often find improper and rough logistical handling during loading, unloading and their final applications. So as to ensure high durability and impact resistance, Prayag PVC-O pipes are subjected to different types of impact tests for every batch. The high impact strength of these pipes help prevent damage or fractures during its application and also ensures a longer life.

As the air resistance decreases the impact, the strength of PVC-O increases significantly compared to U-PVC. Hence the impact resistance of PVC-O is at least 2 times higher than U-PVC. Since this difference increases upto 10 times below 0°C, Prayag pipes are also suitable for extremely cold weather conditions. Although their high impact resistance prevents cracks on PVC-O pipes, but in case the crack develops due to some reason, the crack does not progress through the laminar molecular structure. Moreover these pipes also do not show strength problems, caused by glaze cracks.



PVC-O vs U-PVC Impact strength



PVC-O strength does not be effected

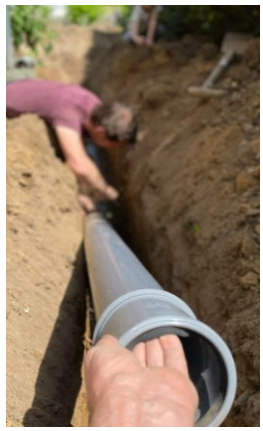
PVC-O PIPES HAVE SEVERAL ADVANTAGES

- **Hydraulic Capacity:** Prayag PVC-O pipes have 15% to 40% higher hydraulic capacity than other pipes. This is due to its thinner wall thickness that have a larger inner diameter than comparable U-PVC and Pe 100 Pipes of the same outer diameter. This allows more water flow in a similar diameter or have an option to use a smaller diameter pipe in a specific water pressure requirement.
- **Hydrostatic Resistance:** Prayag PVC-O Pipes have a hydrostatic resistance of Class 500 and a service life of more than 100 years.
- **Water Hammer Resistance:** Due to its large internal flow area, Prayag PVC-O Pipes are more resistant to water hammer impact than other standard pipes.
- **Impact Resistance:** Prayag PVC-O Pipes have much higher impact resistance and do not crack.
- **Biofilm Resistance:** Prayag PVC-O Pipes are resistant to biofilm formation, which is a persistent issue in PE drinking water pipelines.

Economical Bedding and Backfilling

The high impact resistance of Prayag PVC-O pipes also help in economical bedding and backfilling during its application since it does not require use of fine sand in the backfilling process. However it is not recommended to use large stones or rocks, directly on them.





DUCTILITY (FLEXIBILITY)

Prayag PVC-O pipes are manufactures by radial and axial stretching. This production method makes the pipe thinner and more flexible, with a similar elasticity coefficient of U-PVC pipes. This superior flexibility helps resist any deformation during its use at various challenging and difficult situations, making it more user friendly option.

Because of the high flexibility of Prayag PVC-O pipes, they can be applied upto 11° without using the elbow, allowing fewer fittings to be used. Prayag pipes can also be used with socketed U-PVC and cast iron fittings.







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Terms & Conditions

1. Maximum Retail Price (M.R.P.) is inclusive of all taxes
2. The company reserves the right to change product specifications and features without prior notice
3. This price list supercedes all previous price lists
4. All disputes are subject to Delhi's Jurisdiction

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Factory tour videos

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Unit-III: Plot No. A-166, RIICO Industrial Area, Kaharani, Bhwadi-301019
Unit-IV: DAG-542, 546, 551, 552, 555, 556, 794 Village & Mouza Patakola, Jagadalla Dist. Bankura, West Bengal-722146
Unit-V: F-61, Industrial Area, Ram Nagar, Chandauli, Varanasi, Uttar Pradesh-221110

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