

innovative design

Engineers &
Consultants delight

ashirvad[®]

since 1975

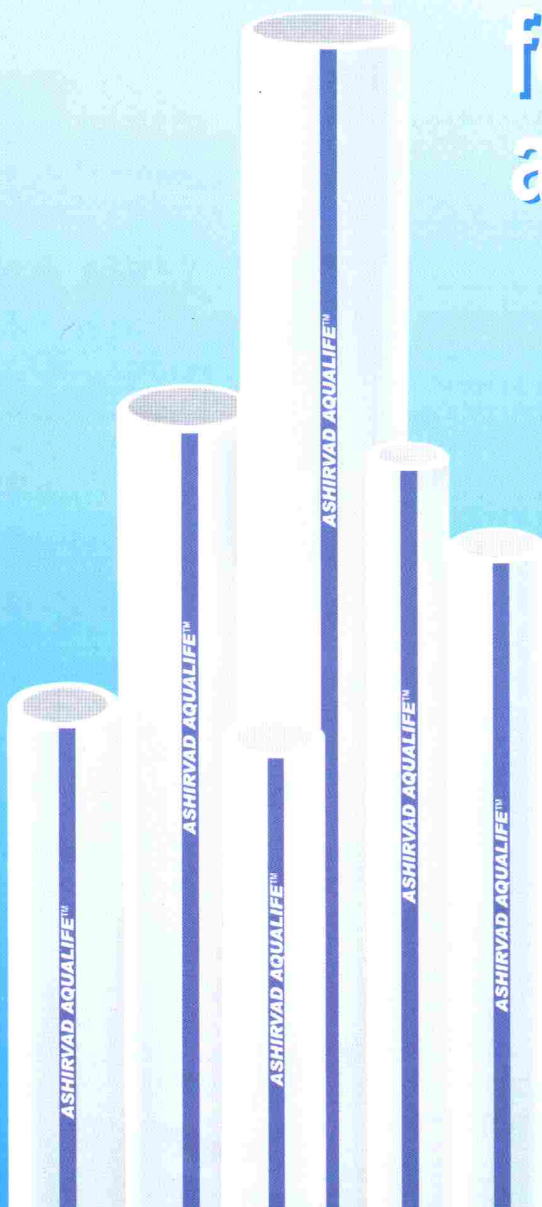
Aqualife -

uPVC Solvent Weld Plumbing System

ASTM D 1785 PVC Plastic pipes Sch 40 & Sch 80

ASTM D 2467 PVC plastic pipe fittings Sch 80

for Cold Water applications



Design Registered

Cost Effective

Lead Free

UV Stabilised

Very High Impact Strength



National Award Winner

INTRODUCTION

Ashirvad pipes pvt. Ltd., is an ISO 9001:2000 company with over three decades of experience in the PVC pipe industry.

With its innovative technology Ashirvad introduces uPVC solvent weld plumbing system under the brand name “**Aqualife**”, which is engineers & consultants delight. Aqualife pipes & fittings are available from sizes 15mm (½") to 100mm (4"). Pipes are manufactured as per ASTM D 1785, Sch 40 & Sch 80 and fittings are as per ASTM D 2467 Sch 80.

PVC - POLYVINYL CHLORIDE

PVC is one of specified thermoplastic for piping system components, including valves, fittings, flanges and many specialty products. PVC has excellent chemical and corrosion resistance to a broad range of fluids.

ASHIRVAD PVC materials conform to ASTM Cell Classification 12454-B of ASTM D1784 (formally designated as Type I, Grade I). The maximum recommended service temperature of PVC products is 60° (140° F)

LEAD FREE

Ashirvad **Aqualife** PVC pipes and fittings being lead free are non-toxic and hence favoured for use in applications such as potable water.

UV RESISTANT

Ashirvad **Aqualife** PVC pipes and fittings are U.V. resistant. U.V. acts as a strong catalyst for the oxidation process which breaks down the polymer chains, leading weakness in the pipes and fittings and do loss of hydrostatic strength. Above effect is very much common with materials like PP and PE.

FIRE RESISTANT

Ashirvad **Aqualife** PVC pipes are inherently difficult to ignite and stops burning once the source of heat is removed. Compared to its common plastic alternatives, PVC performs better in terms of lower combustibility, flammability, flame propagation and heat release. Newly developed advantages in terms of lower acid emissions, smoke generation and enhanced fire resistance.

EASY TO INSTALL

Ashirvad **Aqualife** PVC pipes can be cut, shaped, welded and joined easily in a variety of styles.

DURABLE

Ashirvad **Aqualife** PVC pipes and fittings are resistant to weathering, chemical rotting, corrosion, shock and abrasion. It is therefore the preferred choice for a range of customers for many different long life and outdoor products.

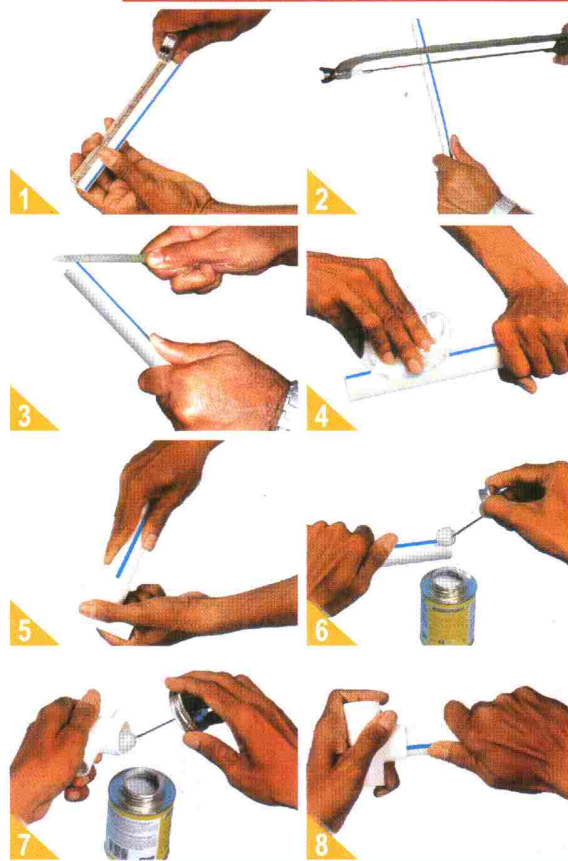
COST EFFECTIVE

Ashirvad **Aqualife** PVC pipes has been a popular material for construction applications for decades due to its physical and technical properties which provide excellent cost-performance advantages. As a material it is very competitive in terms of price, this value is also enhanced by the properties such as its durability, long life & low maintenance.

ENVIRONMENTAL IMPACT

Ashirvad **Aqualife** PVC pipes and fittings is environment friendly. In lifecycle analyses and independent studies, PVC's environmental impact has been found to be favourable when compared with other manufactured materials used for construction. It is comparatively low in its energy and resource use during production, as well as in conversion to finished products.

Easy & 100% leakproof installation



FIELD OF APPLICATIONS

- Cold water plumbing application in buildings
- Industrial process lines
- Swimming pools
- Salt water lines
- Water distribution mains
- Aggressive / corrosive fluid transportation
- Dye plants, chrome, zinc plating and tanning plants
- Sugar, paper and distillery industries
- Coal washing and ash handling
- Pipes for hand pumps
- Ring lines / Down take lines

PRESSURE RATING - PVC PIPES SCHEDULE 40

PVC SCHEDULE 40 & SCHEDULE 80 PRESSURE PIPES AS PER ASTM D 1785 & SCHEDULE 80 FITTINGS AS PER ASTM D 2467

Nominal Pipe Size in	(mm)	Average Outer Diameter (mm)	Min. wall thickness (mm)	Max. work pressure rating (kg/cm ²) at 23°C	Burst Pressure kg/cm ²
1/2"	15	21.34	2.77	42.19	131.70
3/4"	20	26.67	2.87	33.75	106.20
1"	25	33.40	3.38	31.64	99.30
1 1/4"	32	42.16	3.56	26.01	81.40
1 1/2"	40	48.26	3.68	23.20	73.10
2"	50	60.32	3.91	19.69	61.40
2 1/2"	65	73.02	5.16	21.09	66.9
3"	80	88.90	5.49	18.28	57.9
4"	100	114.30	6.02	15.47	49.0

PRESSURE RATING - PVC PIPES SCHEDULE 80

Nominal Pipe Size in	(mm)	Average Outer Diameter (mm)	Min. wall thickness (mm)	Max. work pressure rating (kg/cm ²) at 23°C	Burst Pressure kg/cm ²
1/2"	15	21.34	3.73	59.76	187.60
3/4"	20	26.67	3.91	48.51	151.70
1"	25	33.40	4.55	44.29	139.30
1 1/4"	32	42.16	4.85	36.56	114.50
1 1/2"	40	48.26	5.08	33.04	104.10
2"	50	60.32	5.54	28.12	88.90
2 1/2"	65	73.02	7.01	29.53	93.8
3"	80	88.90	7.62	26.01	82.7
4"	100	114.23	8.56	22.50	71.7

BURST PRESSURE REQUIREMENT FOR PVC FITTINGS SCH 80 ARE SAME AS BURST PRESSURE OF PVC SCHEDULE 80 PIPES.

ashirvad Aqualife

ASHIRVAD AQUALIFE™

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■ TEMPERATURE PRESSURE DE-RATING FACTOR

The operating pressure of PVC pipe will be reduced as the operating temperature increases above 23°C (73°F)

To calculate this reduction, multiply the operating pressure with the correction factors shown below at a operating temperature of system.

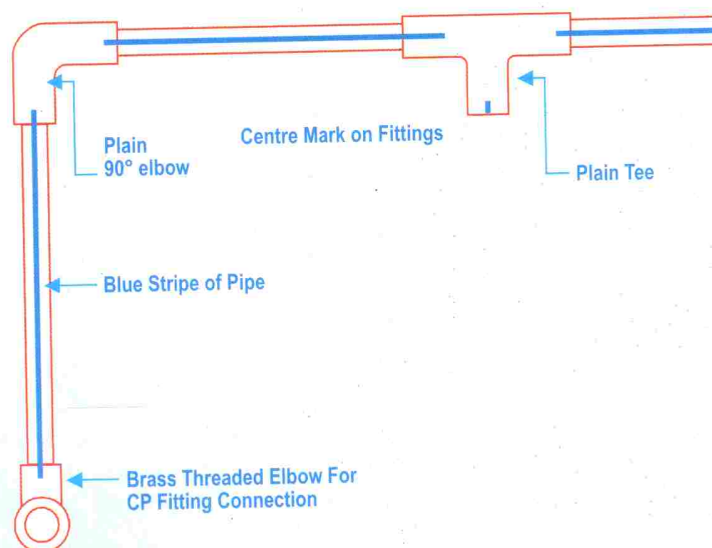
Operating Temp. °C (°F)	23° (73)	27° (80)	32° (90)	38° (100)	43° (110)	49° (120)	54° (130)	60° (140)
PVC	100%	90%	75%	62%	50%	40%	30%	22%

Note

1. Valves, Unions and Specialty products have different elevated temperature ratings than pipes
2. Threaded valves should not be used at temperature above 110°F (43°C) for PVC
3. Flanged joints have a base pressure rating of 150 psi at 23°C

■ DO NOT USE WITH COMPRESSED AIR OR GASES

Ashirvad pipes pvt. ltd. does not recommend the use of thermoplastic piping products for systems to transport or store compressed air or gases, or the testing of thermoplastic piping systems with compressed air or gases in above as well as below ground locations, the use of Ashirvad Aqualife in compressed air or gas systems automatically void any warranty and its use against our recommendation is entirely the responsibility and liability of the installer.



WHY ASHIRVAD AQUALIFE uPVC PIPES?

1. Ashirvad has made innovation for correct alignment of fittings with pipes during fitment. Elbows and fittings in ½", ¾" and 1" have an alignment mould mark which should be matched with the blue stripe on the pipe during solvent cement push fitment process. This is to ensure that in the concealed installations the water outlet fittings are perpendicular to the wall surface & to avoid any repair, breakage, etc. after the wall finishing has been completed. Since there is no reference surface available to the plumber during installation in unplastered walls, this **Self Alignment System** is very useful and convenient. The alignment mark on the plastic fittings is an innovation done for the first time in the world by Ashirvad with design registered.
2. Ashirvad **Aqualife** uPVC pipes & fittings are made with special lead free compound to ensure conformity to the latest requirements in the developed nations. The lead free compound is non-toxic and safe for drinking purposes.

■ BENEFITS

- Ashirvad Aqualife uPVC Solvent Weld Plumbing system uses NSF (National Sanitation Foundation) approved one-step Solvent cement specifically formulated for the use. Joining is accomplished quickly & efficiently utilizing inexpensive tools thereby greatly reducing labour and installation costs.
- Ashirvad Aqualife plumbing system makes its pressure bearing capacity twice than that of the threaded pipe.
- Ashirvad Aqualife PVC pipes & fittings exhibit the well known physical characteristics and other benefits of conventional PVC piping such as good chemical and corrosion resistance, low thermal conductivity, high strength-to-weight ratio, good impact resistance and ease of installation.

■ RANGE OF PRODUCTS

uPVC Column / Drop Pipes for Submersible pump, CPVC pipes & fittings

An ISO 9001 : 2000 Company



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