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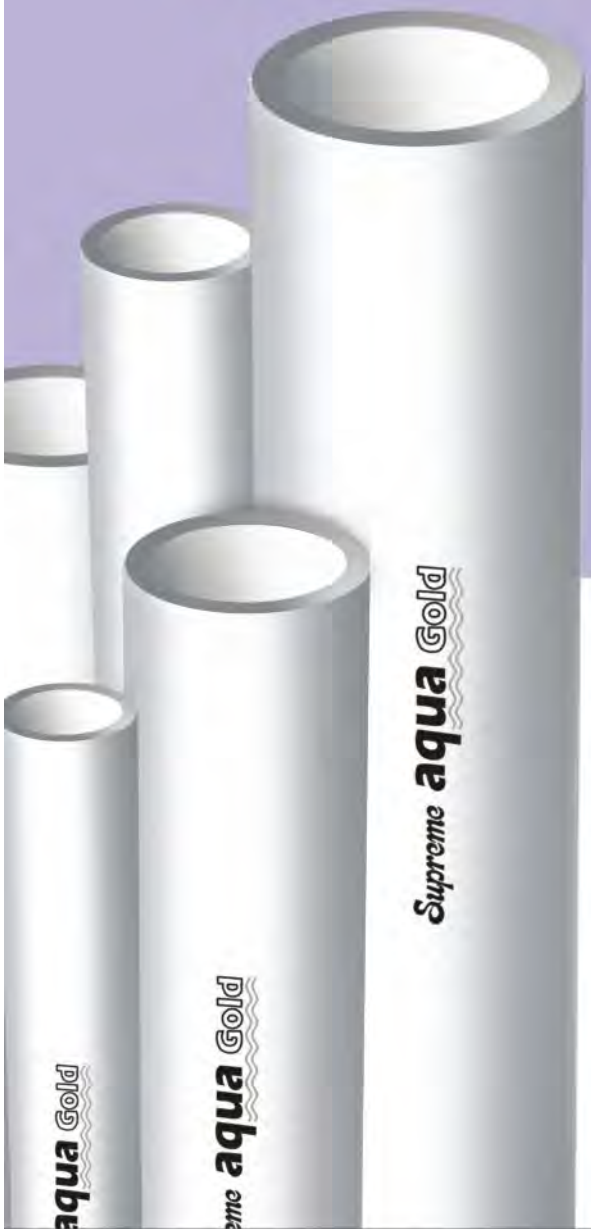
People who know plastics best

LEAD FREE

aqua Gold®

High pressure uPVC plumbing system

...The easy and economical solution



Supreme is pleased to introduce **"lead free"** aqua gold high pressure uPVC solvent weld plumbing system. This plumbing system is the most suitable, easy and economical solution for transportation and distribution of potable water. It is technically superior, cost effective and offers many advantages over conventional G.I. piping system. This system is very easy to install and functionally most suitable for plumbing application like terrace looping, down-take and up-take lines in building industry. Apart from more than 40 - 50% cheaper to GI piping system, it has many more years of service life. This hygienic system is endowed with many good features.

Supreme believes in supplying only superior quality products, aimed at satisfying domestic and international customers. Supreme's view about high quality and advanced product range is supported by its state-of-the-art equipment installed at the plant and technical know how available from the strategic alliance with world leaders in plastic piping technology. The company is proud recipient of top exporter's awards in this range of product consecutively for many years.

Features and benefits

The advantages and benefits of aqua gold high pressure uPVC solvent weld plumbing system are significant and they produce considerable cost savings while increasing the reliability of the piping system. This hygienic system is endowed with the following features.

Stronger, Resilient and Longer Lasting - This system is highly resilient, tough and durable with high tensile and impact strength. Moreover it is free from weaknesses caused by rusting, weathering and chemical action, and hence lasts for a life time.

Mechanical properties - The PVC pipes are relatively more flexible. They have adequate tensile strength and even burst strength to withstand the operating pressures encountered in most service conditions, within the acceptable range of temperature for the system. External shocks or impacts that could cause failure in more rigid materials, can be absorbed by the system, with little or no damage.

Excellent chemical and corrosion resistance - This system is free from corrosion and has excellent resistance to great number of chemicals like strong mineral acids.

Light weight - Being light in weight (1/8th the weight of metal piping), these pipes are easy to handle, transport and install.

Simple and leak proof joints - Jointing can be done speedily with the special solvent cement supplied by the company which ensures 100 % leak proof joints.

Most suitable for carrying drinking water - Being non metallic, this system is free from corrosion, chemical action, and negative biological effects, hence absolutely safe for carrying potable water.

Optimum flow rates - Mirror-smooth inside surface ensures high flow rates and low frictional losses. This system is free from rusting, pitting and offers good resistance to scale formation.

Piping system integrity - Supreme aqua gold offers pipes with a large range of fittings. This implies a complete system solution made of the same material.

Maintenance free - Being free from rusting, pitting or scaling, and galvanic or electrolytic corrosion, Supreme aqua gold system is free from maintenance.

Overall Economy - Due to light weight and simple joining technique, it saves cost not only on material but also on transportation and installation.

Fields of application

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

Dimensions and water pressure rating at 23°C for unthreaded pipes as per ASTM D-1785 (PVC compound grade equivalent to PVC 1120/2120)

Nominal Bore	Outside Diameter (D)	Schedule 40 (Standard)			Schedule 80 (Heavy)		
		Wall Thickness (t)	Working Pressure		Wall Thickness (t)	Working Pressure	
(inch)	(mm)	(mm)	Mpa	psi	(mm)	Mpa	psi
½	21.34 ± 0.10	2.77 + 0.51	4.14	600	3.73 + 0.51	5.86	850
¾	26.67 ± 0.10	2.87 + 0.51	3.31	480	3.91 + 0.51	4.76	690
1	33.40 ± 0.13	3.38 + 0.51	3.10	450	4.55 + 0.53	4.34	630
1¼	42.16 ± 0.13	3.56 + 0.51	2.55	370	4.85 + 0.58	3.59	520
1½	48.26 ± 0.15	3.68 + 0.51	2.28	330	5.08 + 0.61	3.24	470
2	60.32 ± 0.15	3.91 + 0.51	1.93	280	5.54 + 0.66	2.76	400
2½	73.02 ± 0.18	5.16 + 0.61	2.07	300	7.01 + 0.84	2.90	420
3	88.90 ± 0.20	5.49 + 0.66	1.79	260	7.62 + 0.91	2.55	370
4	114.30 ± 0.23	6.02 + 0.71	1.52	220	8.56 + 1.02	2.21	320
5	141.30 ± 0.25	6.55 + 0.79	1.31	190	9.52 + 1.14	2.00	290
6	168.28 ± 0.28	7.11 + 0.86	1.24	180	10.97+1.32	1.93	280
8	219.08 ± 0.38	8.18 + 0.99	1.10	160	12.70+1.52	1.72	250

Fittings - Entire range of fitting is available in SCH 80 pressure class and Tee, Coupler, Elbow in ½" and 1" size are also offered in SCH 40 pressure class.


Coupler


Elbow 90°


Reducing Elbow 90°


Elbow 45°


Equal Tee


Reducing Tee


Cross Tee


Reducer


Reducing Bush


Union


End Cap (Plain)


End Cap (Threaded)


Female Threaded Tee (Plastic)


Female Threaded Elbow (Plastic)


Male Threaded Adapter (Plastic)


Female Threaded Adapter (Plastic)


Female Threaded Elbow (Brass Insert)


Female Threaded Tee (Brass Insert)


Female Threaded Adapter (Brass Insert)


Male Threaded Adapter (Brass Insert)


Ball Valve (Solvent Weld)


Circuit Testing Plug


Screw Tap with Handwheel


Pipe Clip (Plastic)


Threaded Plug


Bend 90° (SW) (F)


Bend 90° (Threaded) (F)


Bypass Bend (F)


Offset Bend


Tank Connector


Tank Connector Long


Male Transition Nipple (F)


Female Transition Nipple (F)


Pipe Nipple (Threaded)


Conversion Bush


Flange Adapter

Cookson EZ 205

Cookson EZ 204


Oatey Advance Clear

Oatey Medium Clear

Rain-R-Shine


Oatey Medium Clear

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Material properties

Mechanical Properties

Ultimate tensile strength	: 450 - 560 Kgf / cm^2
Modulus of elasticity	: 3.3 - 3.38 x 10^4 Kgf / cm^2
Modulus of rigidity	: 1-1.2 x 10^4 Kgf / cm^2
Flexural strength	: 650 - 700 Kgf / cm^2
Maximum bending stress	: 21 Kgf / cm^2

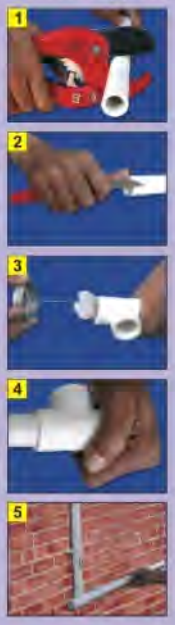
Thermal Properties

Softening point (Vicat)	: 72-80 °C
Coefficient of linear expansion	: 5.4 x 10^{-5} mm / mm °C
Expansion on 6 m length	: 3.2 mm / 10 °C (approx)

Flow Characteristics

Hazen Williams Constant	: 150 remains constant

Joining instructions



Cutting the pipe : Cut the pipe square with hand saw with suitable guide or by pipe cutter.

Joint preparation : Chamfer or deburr pipe or both, approximately at 10 - 15°. Remove burrs from inside and outside diameters with a knife, file or abrasive paper.

Test dry fit of the joint : Insert the pipe into the fitting and check that the interference occurs about 1/3rd to 2/3rd of the socket depth. Too tight or too loose fitment may lead to leak, hence should be avoided.

Cleaning : Remove any dirt, moisture, or grease from pipe end and fitting sockets with a clean dry rag.

Application of solvent cement : Apply cement lightly but uniformly to inside of socket and outside of pipe end with a natural bristle nylon brush or suitable applicator. Apply a second coat of cement to the pipe end. Apply cement quickly to prevent it from drying and be sure to completely cover all jointing surface area of the pipe and fitting. Do not apply excessive cement in bell socket

Assembly of joint : Immediately after applying the last coat of cement to the pipe and while cement is still fluid or wet (within 20 second), forcefully bottom the male end of the pipe in the socket, giving pipe or fitting 1/4 turn (but not after pipe is bottomed) to distribute the cement evenly. Remove excess cement from the pipe at the end of the fitting socket. The joint must not be disturbed immediately after cementing, so that joint can properly cure. Allow cement to cure before pressurizing the system. Recommended curing time is 12 hours.

Quality of Solvent Cement

Consumption of solvent cement

Pipe size (inch)	1/2	3/4	1	1¼	1½	2	3	4	6	8
No. of fittings per litre	274	169	148	106	74	42	32-40	21-30	5-10	3-5

Quality of solvent cement plays an important role and influences the joint strength. Hence it is recommended to use specially formulated heavy duty solvent cement, supplied by Supreme Industries for trouble free performance of the system. Different types of solvent cements are made available viz. EZ 204 / PVC medium Clear, EZ 205 / PVC regular advance, Strong weld heavy duty, Strong weld gold and PVC Rain-n-shine for uPVC pipes.

EZ 204 / PVC medium Clear is medium bodied, medium set solvent cement recommended for pipe sizes upto 8" SCH 40 and SCH 80 pipes. EZ 205 / PVC regular advance is a regular bodied fast set and recommended upto 4" SCH 40 pipes. Rain-n-shine is specially formulated cement for pool and spa industry. It is a medium bodied, very fast set and recommended for pipes upto 6" diameter SCH 40 and SCH 80.

★ When the system is to be concealed, it should be pressure tested before concealment.
★ This system is not recommended for geyser outlets and hot water supply.
★ For more details you can also refer to installation guide for aqua gold.

- Any specification can change without prior notice.
- All information contained in this literature is given in good faith and believed to be accurate and reliable. But because of many factors which may be outside our knowledge and control and affect the use of the product, no warranty is given or is to be implied with respect to such information, nor do we offer any warranty of immunity against patent infringement. No responsibility can be accepted for any error, omissions or incorrect assumptions.

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