

*Based on Japanese Material and Technology*

# **Lifeline**<sup>™</sup> C-PVC

**The latest, cost effective and reliable plumbing system for Hot and Cold water**



Supreme Lifeline C-PVC plumbing system is one more offering for all plumbing and potable water applications. This system is suitable for water supply, water distribution and industrial applications. It is a safe, long-lasting and cost-effective solution for both hot and cold water usage. Supreme Lifeline C-PVC is manufactured using world's best Japanese material and technology and is very reliable and longer-lasting as compared to conventional products. The choice of the raw material and the strict quality control imparts high degree of reliability. As a result Lifeline C-PVC is now approved by MCGM. This simple and easy to fit user-friendly, high-performance system is equipped with many outstanding features.

The Pipes and Fittings are made of Chlorinated Polyvinyl Chloride and manufactured as per ASTM and IS standards. Pipes and Fittings in 15 to 50mm (½" to 2") are available in CTS series, whereas 73.02 to 114.30mm (2½" to 4") sizes are available in IPS series. Pipes in CTS series are manufactured as per IS 15778, whereas fittings are manufactured as per ASTM D-2846. Pipes in SCH 40 and SCH 80 in 2½" to 4" and SCH 80 Fittings in IPS series are manufactured as per ASTM F 441 and ASTM F 439 respectively. Threaded inserts in the transition fittings are made from brass to withstand chemical corrosion at elevated temperatures.

# Lifeline<sup>TM</sup> C-PVC

The latest, cost effective and reliable plumbing system for Hot and Cold water

## FIELDS OF APPLICATION

Hot and Cold water distribution in residential, commercial and public projects, high and low rise buildings, corporate houses and academic institutes, solar heater application etc.

## FEATURES AND BENEFITS

**Excellent resistance to corrosion and chemical attacks :**  
Lifeline is absolutely free from corrosion and offers excellent resistance to great number of chemicals like strong mineral acids and bases.

### Ideal system for carrying drinking water :

Lifeline is absolutely free from corrosion and negative biological effects. It does not break down under the harshest water condition, hence the quality of water never deteriorates.

### Easy and quick assembly :

Light weight together with Simple solvent cement jointing method results in extensive saving on time and labour.

### Tough and rigid material :

C-PVC has a much higher strength/modulus than other thermoplastics used in plumbing applications. Due to its tough and rigid material property this material can with stand high pressure and it requires less supports with minimum offsets/looping.

### Simple and leak proof joints :

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

### Low thermal expansion :

Lifeline C-PVC has a lower co-efficient of thermal expansion reducing expansion due to temperature variations and thereby reducing unsightly looping of the pipe.

### Superior insulation properties :

Lifeline has better insulation properties than metal pipes reducing heat loss and insulation requirement.

### Fire Resistance :

Lifeline C-PVC does not support combustion.

### Maintenance free :

Being free from rusting, pitting or scaling and galvanic or electrolytic corrosion, maintenance is minimal.

### Overall Economy :

This system is most cost effective than any other plumbing system.

## PIPES

The SDR 11 and SDR 13.5 pipes are available from 15mm to 50mm i.e. ½" to 2" in CTS series as per IS15778. 20mm and 25mm i.e. ¾" and 1" pipes are also available in heavy duty SDR 9. Pipes in 2½", 3" and 4" (73.02, 88.9 and 114.30mm) are available in SCH40 and SCH 80 as per ASTM F 441.



Pipe dimensions and pressure rating chart as per IS15778 (CTS Series)

Nominal Bore		Outer Diameter (D) in mm		SDR - 9 (company standard)				SDR - 11				SDR - 13.5			
				Wall Thickness (t) (mm)		Working Pressure at		Wall Thickness (t) (mm)		Working Pressure at		Wall Thickness (t) (mm)		Working Pressure at	
						27°C	82°C			27°C	82°C			27°C	82°C
mm	inch	Minimum	Maximum	Minimum	Maximum	Kg / cm <sup>2</sup>		Minimum	Maximum	Kg / cm <sup>2</sup>		Minimum	Maximum	Kg / cm <sup>2</sup>	
15	½"	15.8	16.0	—	—	—	—	1.70	2.20	27.60	6.80	1.40	1.90	21.80	5.50
20	¾"	22.1	22.3	2.50	3.00	35.20	8.80	2.00	2.50	27.60	6.80	1.70	2.20	21.80	5.50
25	1"	28.5	28.7	3.20	3.80	35.20	8.80	2.60	3.10	27.60	6.80	2.10	2.60	21.80	5.50
32	1¼"	34.8	35.0	—	—	—	—	3.20	3.70	27.60	6.80	2.60	3.10	21.80	5.50
40	1½"	41.2	41.4	—	—	—	—	3.80	4.30	27.60	6.80	3.10	3.60	21.80	5.50
50	2"	53.9	54.1	—	—	—	—	4.90	5.50	27.60	6.80	4.00	4.60	21.80	5.50

Pipe dimensions and pressure rating chart as per ASTM F 441 (IPS Series)

Nominal Bore		Outer Diameter (D) in mm		Schedule 40				Schedule 80			
				Wall Thickness (t) (mm)		Working Pressure at		Wall Thickness (t) (mm)		Working Pressure at	
						23°C	82°C			23°C	82°C
mm	inch	Minimum	Maximum	Minimum	Maximum	Kg / cm <sup>2</sup>		Minimum	Maximum	Kg / cm <sup>2</sup>	
73.02	2 ½"	72.84	73.20	5.16	5.77	20.70	5.20	7.01	7.85	29.00	7.20
88.90	3"	88.70	89.10	5.49	6.15	17.90	4.50	7.62	8.53	25.50	6.20
114.30	4"	114.07	114.53	6.02	6.73	15.20	3.80	8.56	9.58	22.10	5.50

**FITTINGS** : Entire range of fittings in SDR 11 are available in ½ to 2" in CTS series as per ASTM D 2846.

Tee, Coupler, Elbow, Reducer and Female threaded elbow (brass) are also available in heavy duty SDR 9 pressure class.

Entire range of fittings in 2½", 3" and 4" (73.02, 88.9 and 114.30mm) are available in SCH 80 as per ASTM F 439.



**COUPLER**



**ELBOW 90°**



**ELBOW 45°**



**REDUCING ELBOW**



**EQUAL TEE**



**REDUCING TEE**



**CROSS TEE**



**REDUCER**



**REDUCING BUSH**



**TRANSITION BUSH**



**MTA (Plastic)**



**FTA (Plastic)**



**FEMALE THREADED ELBOW  
(Brass Insert)**



**FEMALE THREADED TEE  
(Brass Insert)**



**FTA (Brass Insert)**



**FTA (Brass Insert)**



**MTA (Brass Insert)**



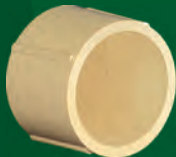
**MTA (Brass Insert)**



**UNION**



**BALL VALVE**



**END CAP**



**TANK CONNECTOR**



**BYPASS BEND**



**SHORT BEND**



**ELBOW HOLDER**



**PIPE CLIP**



**METAL CLAMP**



**SOLVENT CEMENT**



**JOINTING INSTRUCTIONS**

**Cutting the pipe :** Cut the pipe square with hand saw with suitable guide or by pipe cutter in order to make a proper and neat joint.

**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 1/3<sup>rd</sup> to 2/3<sup>rd</sup> 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 and fitting sockets with a clean dry rag.

**Application of solvent cement :** While making a joint, 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 10- 20 second), forcefully bottom the male end of the pipe in the socket, giving pipe or fitting 1/4<sup>th</sup> turn (but not after pipe is bottomed) to distribute cement evenly. Remove excess cement from the pipe at the end of 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.

**Curing :** Allow cement to cure before applying water pressure. Exact curing time varies with temperature, humidity etc. You can refer the given joint curing chart.

**Quality of Solvent Cement :** Quality of the solvent cement plays the important role and influences the joint strength. Hence it is recommended to use specially formulated solvent cement, supplied by the company for trouble free performance of the system.

**Consumption of solvent cement.**

Pipe Size (inch)	½	¾	1	1¼	1½	2
No. of fittings per liter	1200	750	500	450	325	225

**Horizontal and Vertical Supports :** The fixing clamps used for anchoring the conduit system to structural element of the building and protecting the pipes against excessive buckling. The fixing clamps are to be firmly mounted, in order to prevent vibrations and transmission of noise. Spacing of such clamps depends on the temperature of a conveyed medium and diameter of conduit.

Nominal Pipe Size		21° C (70°F)		49°C (120°F)		71°C (160°F)		82°C (180°F)	
Inch	mm	FT	(cm)	FT	(cm)	FT	(cm)	FT	(cm)
½	15	5.5	167.70	4.5	137.16	3.0	91.44	2.5	76.20
¾	20	5.5	167.70	5.0	152.40	3.0	91.44	2.5	76.20
1	25	6.0	182.88	5.5	167.70	3.5	106.68	3.5	91.44
1¼	32	6.5	198.12	6.0	182.88	3.5	106.88	3.5	106.68
1½	40	7.0	213.36	6.0	182.88	3.5	106.88	3.5	106.68
2	50	7.0	213.36	6.5	198.12	4.0	121.92	3.5	106.68
2½	65	8.0	244.00	7.5	228.60	4.5	137.16	4.0	121.92
3	75	8.0	244.00	7.5	228.60	4.5	137.16	4.0	121.92
4	100	9.0	274.32	8.5	259.08	5.0	152.40	4.5	137.16

★ **When the system is to be concealed, it should be pressure tested before concealment.**

★ This system is also recommended for chemical application but please refer chemical resistance chart before use

**Note :** Only company supplied and specified solvent cement should be used for satisfactory performance of the joints. Company will not take any warranty or guarantee for the performance unless company supplied solvent cement is used .

● 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.



**THE SUPREME INDUSTRIES LTD.** (Plastic Piping Division)

1161/1162, Solitair Corporate Park, Building No. 11,167, Guru Hargovindji Marg, Chakala, Andheri Ghatkopar Link Road, Andheri (East) Mumbai - 400 093. India.

Tel: 91-22-6771 0000, 4043 0000 Fax: 6771 0099 / 4043 0099

● Works: Unit No.3, Gat No.47-48, at post Gadegaon, Tal. Jamner Dist., Jalgaon.

● Works : D-101/102, MIDC, Jalgaon - 425 003 India.

Export Division : 91-22-6771 0126 / 4043 0126 Fax : 6771 0130



Website : www.supreme.co.in

e-mail: pvc-pipes@supreme.co.in

**Branch Offices ☎ Tel.**

<b>Ahmedabad</b>	: 079 - 2768 1361	2768 0064
<b>Bangalore</b>	: 080 - 2667 3175	2667 3014
<b>Chennai</b>	: 044 - 4203 0934, 4203 0960	4213 2809
<b>Cochin</b>	: 0484 - 2385 346	2385 345
<b>Hyderabad</b>	: 040 - 6646 9558	2322 1120
<b>Indore</b>	: 0731 - 2432 684	2432 684
<b>Jaipur</b>	: 0141 - 3206 123	2332 134
<b>Jalgaon Gadegaon</b>	: 0257 - 3050 541,42,43	3050 611
<b>Kanpur</b>	: 0512 - 2332 276	2332 276
<b>Kolkata</b>	: 033 - 2485 8837, 2485 8839	2585 8838
<b>New Delhi</b>	: 011 - 4654 2023, 2641 3174	2641 3174

**Fax**

Authorised Distributor