

... Based on Japanese Material and Technology

**Lifeline<sup>®</sup> C-PVC**

**Hot and Cold Water System**

... The latest and reliable plumbing system



IS 15778:2007



CML 3684475



The Supreme Industries Ltd. is an acknowledged leader of India's plastic industry. It is credited with pioneering several path breaking products and has gained a valuable experience in providing innovative and cost effective piping solutions. The Company has been a trend setter and a torch bearer in the transition from conventional to advanced plastic piping products in the country. The Company's objective is to meet the growing needs of its clientele in water and waste management and in infrastructure sector through a specially designed high performance range of piping products. The innovative product portfolio offered by Supreme is extensive in nature and applications. With its range of over 7500 products, the most comprehensive in the piping industry, Supreme caters to almost every conceivable need and application in piping.

Supreme Lifeline C-PVC, manufactured using world's best Japanese material and technology, is an ideal solution for hot and cold water usages. This system is one of the best substitutes for GI piping in water supply and distribution and for industrial applications. Choice of raw material and strict quality control in production, gives these products a high degree of reliability which makes Lifeline C-PVC a preferred choice of leading consultants, architects, builders, plumbers and quality conscious people across the country and abroad. This MCGM approved, simple and easy to install, user-friendly and high-performance system is equipped with many outstanding features.

**Jeevan bhar ka saath...**

## Unique features

**High quality and wide range** - The system consists of pipes and a wide range of fittings with Company manufactured, NSF approved international quality solvent cements, which makes the system complete in all respect.

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

**Most suitable for carrying potable water** - Being free from corrosion as also negative biological effects and does not break down even under the harshest water conditions, it does not let the quality of water deteriorate.

**Light weight, easy and quick assembly** - Extensive saving on time, labour and costs.

**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, Lifeline can withstand higher pressures and temperatures. It

requires lesser supports with minimum offsets/looping.

**Leak proof joints** - Jointing with special solvent cement manufactured and supplied by the Company ensures 100% leak proof joints.

**Low thermal expansion** - As co-efficient of thermal expansion is low, expansion due to temperature variations is reduced, unsightly snaking prevented and keeping it look elegant.

**Superior insulation properties** - Lifeline has better insulation properties than metal pipes which reduces heat loss and consequent insulation costs.

**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.

**Highly economical in long run** - This system is more cost effective than any other plumbing system in the long run.

**Fields of application:** Lifeline C-PVC is designed for hot and cold water supply in residential, commercial and public projects, high and low rise buildings, corporate houses and academic institutes, solar heater applications etc.



**Pipes:** The SDR 11 and SDR 13.5 pipes are available from 15 to 50mm (½" to 2") sizes in CTS series as per IS15778. 20 and 25mm (¾" and 1") pipes are also available in heavy duty SDR 9. Pipes in 65 to 250mm range (2½" to 10") are available in SCH 40 and SCH 80 as per ASTM F 441.

**Pipe dimensions and pressure rating chart as per IS 15778 (CTS Series)**

Nominal size		Outer diameter (mm)		SDR-9 (company standard)				SDR-11				SDR-13.5			
				Wall thickness (mm)		Working pressure at		Wall thickness (mm)		Working pressure at		Wall thickness (mm)		Working pressure at	
						27°C	82°C			27°C	82°C			27°C	82°C
mm	inch	Min	Max	Min	Max	Kgf/cm <sup>2</sup>		Min	Max	Kgf/cm <sup>2</sup>		Min	Max	Kgf/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 size		Outer diameter (mm)		Schedule 40				Schedule 80			
				Wall thickness (mm)		Working pressure at		Wall thickness (mm)		Working pressure at	
						27°C	82°C			27°C	82°C
mm	inch	Min	Max	Min	Max	Kgf/cm <sup>2</sup>		Min	Max	Kgf/cm <sup>2</sup>	
65	2½	72.84	73.20	5.16	5.77	20.70	5.20	7.01	7.85	29.00	7.20
80	3	88.70	89.10	5.49	6.15	17.90	4.50	7.62	8.53	25.50	6.20
100	4	114.07	114.53	6.02	6.73	15.20	3.80	8.56	9.58	22.10	5.50
150	6	168.02	168.58	7.11	7.97	12.40	3.10	10.97	12.29	19.30	4.80
200	8	218.72	219.48	8.18	9.17	11.00	2.80	12.70	14.22	17.20	4.10
250	10	272.72	273.48	9.27	10.39	9.70	2.40	15.06	16.86	15.19	3.80

## Fittings

Entire range of fittings in SDR 11 is available from 15 to 50mm (½" to 2") in CTS series as per ASTM D 2846 besides the most running fittings in 20 and 25mm sizes in heavy duty SDR 9 pressure class. Entire range of fittings in 65 to 200mm (2½" to 8") is available in SCH 40 and SCH 80 as per ASTM F 438 and F 439.



### Joining instructions

**Cutting the pipe:** Cut the pipe at 90° with a handsaw with suitable guide or by pipe cutter in order to make a proper and neat joint.

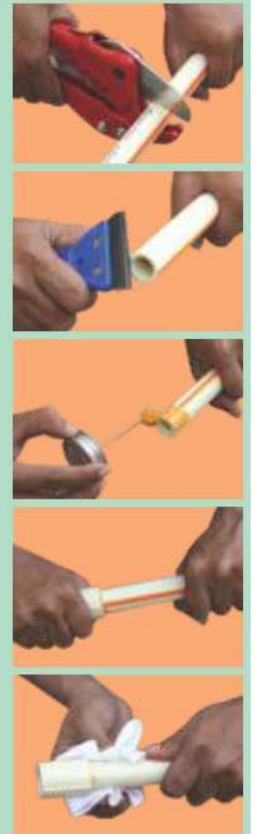
**Joint preparation:** Chamfer or deburr pipe or both, approximately at 10-15° angle. Remove burrs from inner and outer surfaces with help of a knife, file or abrasive paper.

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

**Test dry fit 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 a leak.

**Application of solvent cement:** While making a joint, apply cement lightly but uniformly to the inner surface of the socket and outer surface of the pipe end with a natural bristle nylon brush or a suitable applicator. Apply a second coat of cement to the pipe end. Apply cement quickly to prevent it from drying and make sure to completely cover all jointing surfaces 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 not dry, say within 10- 20 second, forcefully bottom the male end of the pipe in the socket, giving pipe or fitting ¼<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 to let the cement cure properly. Allow cement to cure before pressurizing the system for about 12 hours for proper curing. This time may however vary slightly depending upon temperature and humidity in the environment.



### Quality of solvent cement

The quality of solvent cement plays very important role in solvent weld plumbing which affects the joint strength. Considering this important fact, the Company started manufacturing its own solvent cement under strict supervision and quality control which ensures consistency in quality of solvent cement making the joints leak proof. This solvent cement is manufactured by the Company under the brand name, "SILBOND" which has been certified by NSF (USA).

### Consumption of solvent cement

Pipe Size (inch)	½	¾	1	1¼	1½	2	2½	3	4	6	8	10
No. of joints per litre	1200	750	500	450	325	225	50	40	30	10	5	3-4

• Any specification may change without prior notice. • All information contained in this literature is given in good faith and believed to be accurate and reliable. Because of many factors which may be outside our knowledge or control and affect the use of the product, no warranty is given or 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.

### Horizontal and vertical supports

Fixing clamps are 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.

★ When the system is to be concealed, it should be pressure tested before concealment. ★ This system is also recommended for chemical applications. Refer to chemical resistance chart before use.

**Note:** The Company does not take guarantee for desired performance unless company supplied solvent cement is used.