

### FEATURES AND BENEFITS

- ▶ Proven Performance for water temperature from 5° to 60°C
- ▶ Self-extinguishing. Does not support combustion
- ▶ Does not support scaling even in hard water conditions
- ▶ Does not support combustion ▶ Good impact resistance
- ▶ Consistent and reliable joints ▶ Does not corrode
- ▶ Cost Effective with very low lifetime ownership cost ▶ Long Life
- ▶ Kothari Pipes is fully compatible with cold water plumbing system



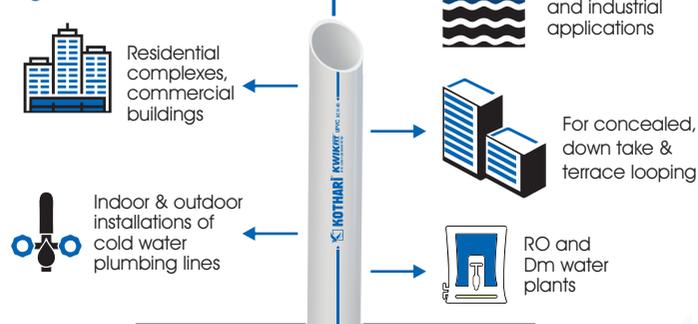
### PRODUCT RANGE

**Pipe** : 15 to 300 mm (1/2" to 12" inch)    **Fittings** : 15 to 100 mm (1/2" to 4" inch)

### STANDARDS

Pipes				Fittings			
Size (mm)	Class	Standard	End Connection	Size (mm)	Class	Standard	End Connection
15 to 300	SCH - 40	ASTM D - 1785	Solvent Cement Joint	15 to 100	SCH - 40	ASTM D - 2466	Solvent Cement Sockets Joint for transition joints, fittings with plastic threads & metal threaded inserts.
15 to 300	SCH - 80	ASTM D - 1785		15 to 100	SCH - 80	ASTM D - 2467	

### APPLICATIONS



- UPVC Compounds**: Manufactured from environment friendly virgin UPVC Compounds.
- Pb**: Lead free material does not affect water quality for human health.
- Fast and Easy installation**: Fast and Easy installation even in wet conditions.
- Chemical Resistance**: Chemical Resistance.
- Freedom from leakage**: Freedom from leakage.
- Friction free**: Friction free due to Smooth inner surface.
- High Strength**: High Strength.
- All weather UV resistance**: All weather UV resistance.

### DIMENSIONS

Dimensions & Working pressure details for KwikFit UPVC Pipes (Solvent Weld) at 23°C

Working pressure details for KwikFit UPVC Pipes (Solvent Weld) at 23°C

Nominal Bore		Outside Diameter	SCH-40		SCH-80		Nominal Bore		SCH-40		SCH-80	
			Wall Thickness	Working Pressure	Wall Thickness	Working Pressure			Working Pressure	Working Pressure		
mm	(inch)	(Kg/cm <sup>2</sup> )	(mm)	(Kg/cm <sup>2</sup> )	(mm)	(Kg/cm <sup>2</sup> )	(mm)	(inch)	(Kg/cm <sup>2</sup> )	(Kg/cm <sup>2</sup> )	(Kg/cm <sup>2</sup> )	(Kg/cm <sup>2</sup> )
15	1/2	21.34 +/- 0.10	2.77 + 0.51	42.40	3.73 + 0.51	59.75	15	1/2	25.30	35.85		
20	3/4	26.67 +/- 0.10	2.87 + 0.51	33.75	3.91 + 0.51	48.50	20	3/4	20.25	29.10		
25	1	33.40 +/- 0.13	3.38 + 0.51	31.60	4.55 + 0.53	44.25	25	1	18.95	26.55		
32	1 1/4	42.16 +/- 0.13	3.56 + 0.51	26.00	4.85 + 0.58	36.60	32	1 1/4	15.60	21.95		
40	1 1/2	48.26 +/- 0.15	3.68 + 0.51	23.25	5.08 + 0.61	33.00	40	1 1/2	13.95	19.80		
50	2	60.32 +/- 0.15	3.91 + 0.51	19.65	5.54 + 0.66	28.10	50	2	11.75	16.85		
65	2 1/2	73.02 +/- 0.18	5.16 + 0.61	21.10	7.01 + 0.84	29.55	65	2 1/2	-	17.70		
80	3	88.90 +/- 0.20	5.49 + 0.66	18.25	7.62 + 0.91	26.00	80	3	-	15.60		
100	4	114.30 +/- 0.23	6.02 + 0.71	15.50	8.56 + 1.02	22.50	100	4	-	13.50		
150	6	168.28 +/- 0.28	7.11 + 0.86	12.60	10.97 + 1.32	19.65						

Pressure rating of UPVC pipes & Fittings is temperature related. Derating factor shall be applied for applications at higher temperatures.

Working pressure for Metal Insert Fittings is 15 Kg/Cm<sup>2</sup>

### TEMPERATURE DE-RATING FACTOR FOR UPVC

OPERATING TEMPERATURE CENTIGRADE (°C)	DE-RATING FACTOR
23	1.00
27	0.88
32	0.75
38	0.62
43	0.51
49	0.40
54	0.31
60	0.22

### INSTALLATION PROCEDURE

- a. Horizontal and vertical spacing in feet for pipe supporting (clamping of pipes)

NOMINAL PIPE DIA		SCHEDULE 40					SCHEDULE 80				
INCH	MM	TEMPERATURE °C					TEMPERATURE °C				
		15.5	26.6	37.7	48.8	60	15.5	26.6	37.7	48.8	60
1/2"	15	5	4 1/2	4 1/2	3	2 1/2	4 1/2	4 1/2	4	2 1/2	2 1/2
3/4"	20	5 1/2	5	4 1/2	3	2 1/2	5	4 1/2	4	2 1/2	2 1/2
1"	25	6	5 1/2	5	3 1/2	3	5 1/2	5	4 1/2	3	2 1/2
1 1/4"	32	6	6	5 1/2	3 1/2	3	5 1/2	5 1/2	5	3	3
1 1/2"	40	6 1/2	6	5 1/2	3 1/2	3 1/2	6	5 1/2	5	3 1/2	3
2"	50	7	6 1/2	6	4	3 1/2	6	5 1/2	5	3 1/2	3
2 1/2"	63	7 1/2	7 1/2	6 1/2	4 1/2	4	6 1/2	6	5 1/2	4	3
3"	75	8	7 1/2	7	4 1/2	4	7	7	6	4	3 1/2
4"	100	9	8 1/2	7 1/2	5	4 1/2	7 1/2	7	6 1/2	4 1/2	4
6"	150	10	9 1/2	8 1/2	6 1/2	5 1/2	8 1/2	8	7 1/2	5	4 1/2

- b. Installation with solvent cement



Cutting



De-Burring



Cleaning / Dry



Solvent Cementing



Assembly

### SOLVENT CEMENTED JOINTING

- Dry fitment-check joint of pipe to fitting without solvent cement. Should fit up to 60 – 70%
- Cold fusion joint (cold welded joint)
- For diameters 1/2" to 2", single step solvent cement
- For diameters 2 1/2" to 4", 2 step solvent cement (Primer + Solvent Cement)
- Primer helps to clean the surface of pipe & fitting and soften the material
- Set time-After application of solvent cement, it takes some time for the joint to set, subject the atmospheric conditions and pipe diameter
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AVERAGE INITIAL SET SCHEDULE FOR UPVC SOLVENT CEMENT			
TEMP RANGE	PIPE SIZE 1/2" - 1 1/2"	PIPE SIZE 1 1/2" - 3"	PIPE SIZE 3 1/2" - 4"
16° - 38°C	2 minutes	5 minutes	30 minutes
5° - 16°C	5 minutes	10 minutes	2 hours
-18° - -5°C	10 minutes	15 minutes	12 hours

Note - Typical set schedule is required time before it is advisable to carefully handle joint. In wet or humid conditions, additional set time maybe required of up to 50% of amount listed. Use as general guidelines only.

- g. Cure time-Curing time is longer than the set time. Curing means the joint has completely matured

AVERAGE JOINT CURE SCHEDULE FOR UPVC SOLVENT CEMENT						
RELATIVE HUMIDITY 60% OR LESS	PIPE Ø 1/2" - 1 1/2"		PIPE Ø 1 1/2" - 2"		PIPE Ø 2 1/2" - 4"	
TEMP. RANGES DURING ASSEMBLY & CURE PERIODS	BAR		BAR		BAR	
	UP TO 11	11 TO 26	UP TO 11	11 TO 22	UP TO 11	11 TO 22
16° - 38°C	15 min	6 hrs	30 min	12 hrs	1 1/2 hrs	24 hrs
5° - 16°C	10 min	12 hrs	45 min	24 hrs	4 hrs	48 hrs
-18° - -5°C	15 min	48 hrs	1 hr	96 hrs	72 hrs	8 days

Note: Joint schedule is the necessary time to allow before pressurizing system. In damp or humid weather allow 50% more cure time.

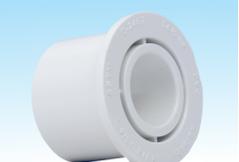
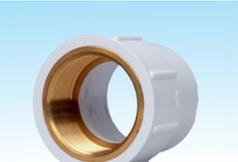
- The pressure test can only be performed after the joint is completely cured
- Compressed air cannot be used for leakage test
- In case of using paint on UPVC piping system, use only Latex based paints which are water based paints wherein the paint concentrate is diluted with water to make it workable and brushable. **No Oil/Solvent based paints** are to be used as these paints can drastically reduce the life of the systems

### COLOUR CODING (PRINTING ON PIPES)

Type of PIPE	Colour	Image
SCH 40	Blue strip	
SCH 80	Red strip	

**UPVC FITTINGS**

**SCH 80**

				
<b>COUPLER</b>	<b>ELBOW 90°</b>	<b>EQUAL TEE</b>	<b>M.T.A. (MAPT)</b>	<b>3 WAY ELBOW</b>
				
<b>ELBOW 45°</b>	<b>END CAP</b>	<b>F.T.A. (FAPT)</b>	<b>REDUCER</b>	<b>REDUCING BUSH</b>
				
<b>UNION</b>	<b>TANK NIPPLE - SOCKET TYPE</b>	<b>TANK NIPPLE - BOTH SIDE THREADED</b>	<b>REDUCING TEE</b>	<b>REDUCING ELBOW 90°</b>
				
<b>EXTENDED END PLUG-THREADED END</b>	<b>BRASS ELBOW 90°</b>	<b>BRASS TEE</b>	<b>BRASS F.T.A.</b>	<b>BRASS M.T.A.</b>
				
<b>UPVC BALL VALVE (UNION TYPE)</b>	<b>ASTM BALL VALVE (COMPACT TYPE)</b>	<b>TRANSITION BUSH</b>	<b>BLIND FLANGE</b>	<b>FLANGE WITH SOCKET</b>

**SCH 40**

**SCH 80**

				
<b>EQUAL TEE SCH 40 Plus</b>	<b>COUPLER SCH 40 Plus</b>	<b>ELBOW- 90° SCH 40 Plus</b>	<b>FABRICATED LONG BEND 90° SCH 80 Plus</b>	<b>FABRICATED CROSS OVER BEND</b>