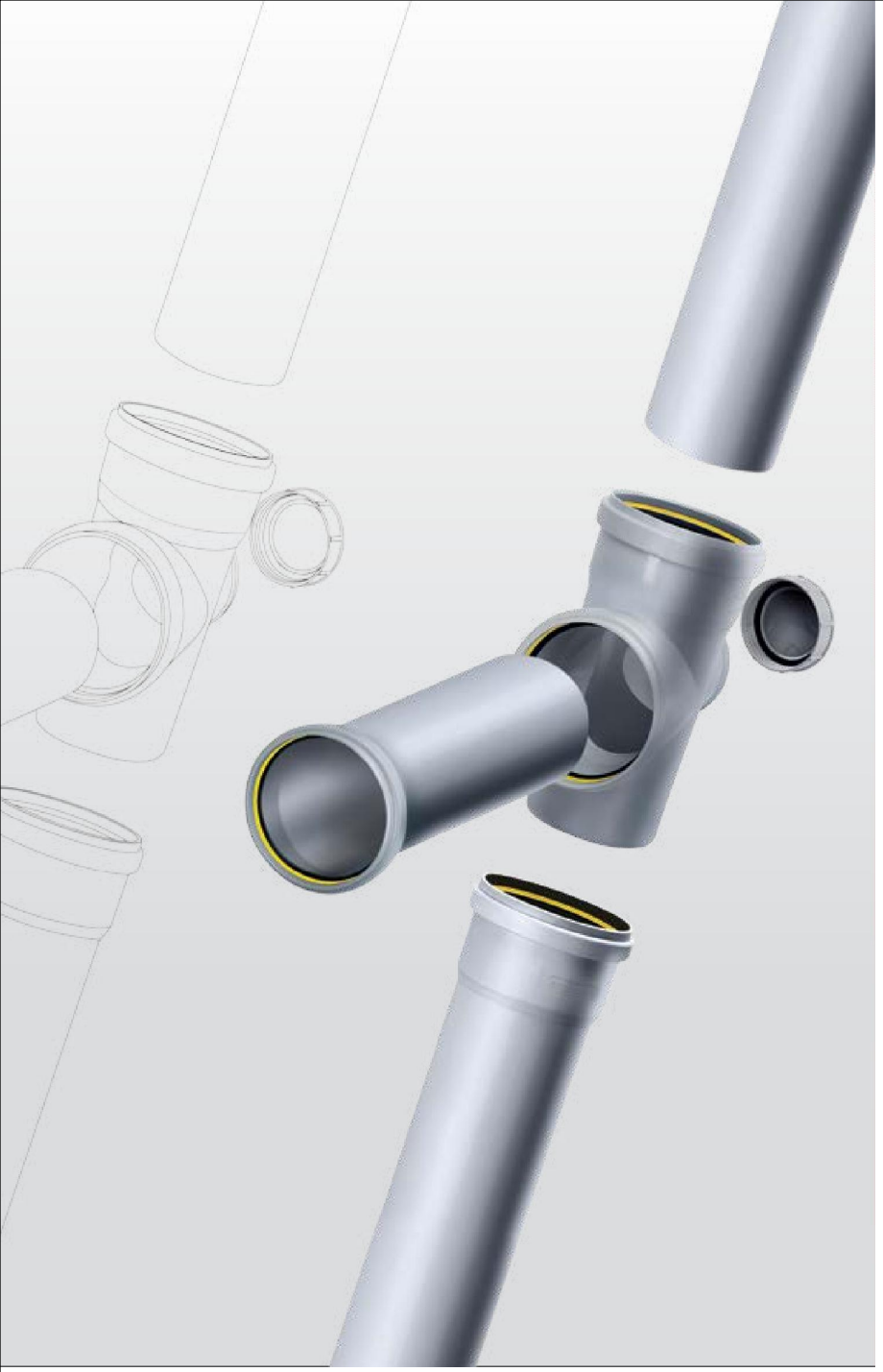


ABOUT FLOWKEM

Flowkem started the journey from manufacturing Ball– valves and was incorporated in 2014 with a vision to provide best quality pipes and fittings across the country. Today we are an ISO 9001:2015 certified organisation whose aim is to make quality products available to every household and industry at best prices in the country.

Our manufacturing facility located at Ahmedabad (Gujarat) is equipped with modern and state of art machinery and infrastructure, covering a total area of 16 acres of which 22000 square meters of constructed area with 05 extrusion machines and 55 Injection moulding machines. Our products are produced in accordance with the Indian standards set by Bureau of Indian Standards (BIS) and other approving agencies.

We manufacture CPVC, UPVC, SWR pipes and fittings & Agriculture Pipes and Moulded fittings. The pipes and fittings are available in various sizes, pressure classes and diameters fit for diversified applications in both agricultural as well as non-agricultural sectors including housing, industrial and construction.

Under the leadership of Mr. Shailesh Patel, Managing Director, Flowkem has expanded into the plumbing industry. He is a person of great vision, exemplary talents and many achievements. His energy and enthusiasm have brought the Company to achieve many milestones. Beginning the journey from manufacturing Ball-valves in 2002 to venturing into plumbing and drainage systems, Flowkem has grown to be one of the popular brands in many markets in India.

We are growing at a fast pace and working with numerous channel partners across India which help us in reaching customers effectively. We also have an efficient marketing & sales infrastructure supported by professional team.

FLOWKEM aims to create its niche in plumbing and other water solution products. The customers' satisfaction is the most important goal for FLOWKEM.

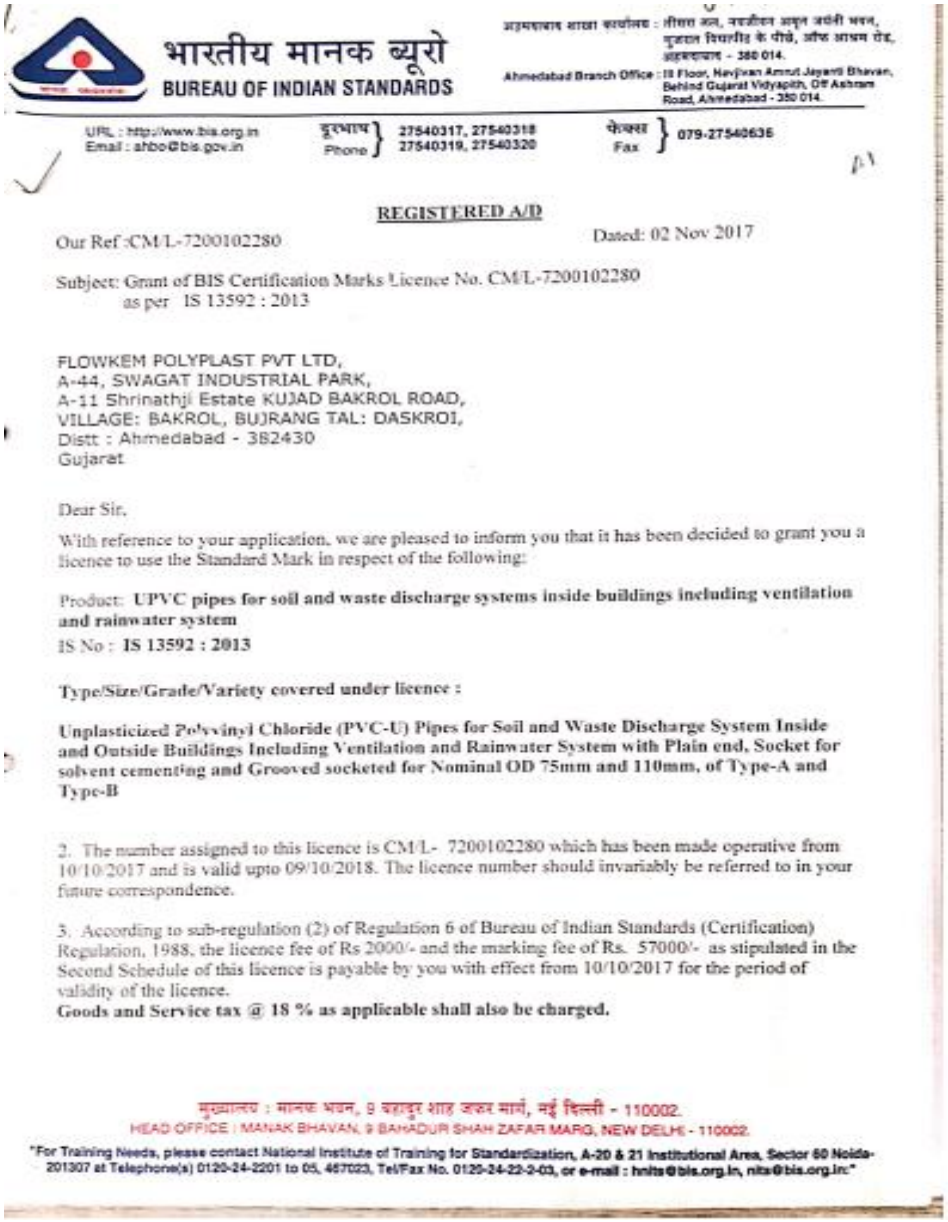
UV RESISTANT

Pb Pb-Free

QA

Contents

Certifications



भारतीय मानक ब्यूरो
BUREAU OF INDIAN STANDARDS

अहमदाबाद शाखा कार्यालय : तीसरा तल, नवजीवन अमृत जयंती भवन, गुजरात विद्यापीठ के पीछे, ऑफ आश्रम रोड, अहमदाबाद - 380 014.
Ahmedabad Branch Office : III Floor, Navjivan Amrut Jayanti Bhavan, Behind Gujarat Vidyapith, Off Ashram Road, Ahmedabad - 380 014.

URL : http://www.bis.org.in
Email : ahbo@bis.gov.in
दूरभाष / Phone } 27540317, 27540318 27540319, 27540320
फेक्स / Fax } 079-27540636

REGISTERED A/D

Our Ref :CM/L-7200102280 Dated: 02 Nov 2017

Subject: Grant of BIS Certification Marks Licence No. CM/L-7200102280 as per IS 13592 : 2013

FLOWKEM POLYPLAST PVT LTD,
A-44, SWAGAT INDUSTRIAL PARK,
A-11 Shrinathji Estate KUJAD BAKROL ROAD,
VILLAGE: BAKROL, BUJRANG TAL: DASKROI,
Distt : Ahmedabad - 382430
Gujarat

Dear Sir,

With reference to your application, we are pleased to inform you that it has been decided to grant you a licence to use the Standard Mark in respect of the following:

Product: **UPVC pipes for soil and waste discharge systems inside buildings including ventilation and rainwater system**
IS No : **IS 13592 : 2013**

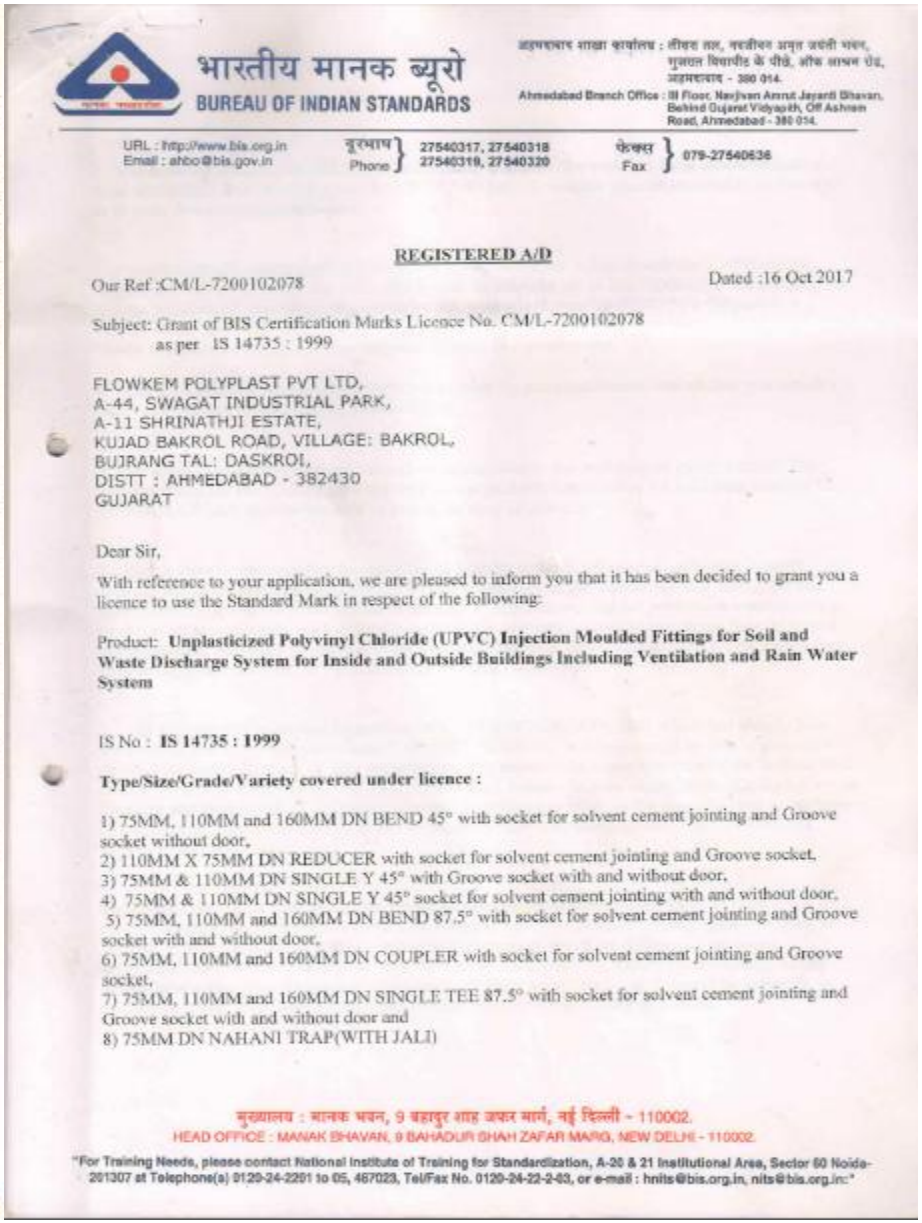
Type/Size/Grade/Variety covered under licence :

Unplasticized Polyvinyl Chloride (PVC-U) Pipes for Soil and Waste Discharge System Inside and Outside Buildings Including Ventilation and Rainwater System with Plain end, Socket for solvent cementing and Grooved socketed for Nominal OD 75mm and 110mm, of Type-A and Type-B

2. The number assigned to this licence is CM/L- 7200102280 which has been made operative from 10/10/2017 and is valid upto 09/10/2018. The licence number should invariably be referred to in your future correspondence.

3. According to sub-regulation (2) of Regulation 6 of Bureau of Indian Standards (Certification) Regulation, 1988, the licence fee of Rs 2000/- and the marking fee of Rs. 57000/- as stipulated in the Second Schedule of this licence is payable by you with effect from 10/10/2017 for the period of validity of the licence.
Goods and Service tax @ 18 % as applicable shall also be charged.

मुख्यालय : मानक भवन, 9 बहादुर शाह जफर मार्ग, नई दिल्ली - 110002.
HEAD OFFICE : MANAK BHAVAN, 9 BAHADUR SHAH ZAFAR MARG, NEW DELHI - 110002.
"For Training Needs, please contact National Institute of Training for Standardization, A-20 & 21 Institutional Area, Sector 60 Noida-201307 at Telephone(s) 0120-24-2201 to 05, 467023, Tel/Fax No. 0120-24-22-2-03, or e-mail : hnits@bis.org.in, nits@bis.org.in."



भारतीय मानक ब्यूरो
BUREAU OF INDIAN STANDARDS

अहमदाबाद शाखा कार्यालय : तीसरा तल, नवजीवन अमृत जयंती भवन, गुजरात विद्यापीठ के पीछे, ऑफ आश्रम रोड, अहमदाबाद - 380 014.
Ahmedabad Branch Office : III Floor, Navjivan Amrut Jayanti Bhavan, Behind Gujarat Vidyapith, Off Ashram Road, Ahmedabad - 380 014.

URL : http://www.bis.org.in
Email : ahbo@bis.gov.in
दूरभाष / Phone } 27540317, 27540318 27540319, 27540320
फेक्स / Fax } 079-27540636

REGISTERED A/D

Our Ref :CM/L-7200102078 Dated :16 Oct 2017

Subject: Grant of BIS Certification Marks Licence No. CM/L-7200102078 as per IS 14735 : 1999

FLOWKEM POLYPLAST PVT LTD,
A-44, SWAGAT INDUSTRIAL PARK,
A-11 SHRINATHJI ESTATE,
KUJAD BAKROL ROAD, VILLAGE: BAKROL,
BUJRANG TAL: DASKROI,
DISTT : AHMEDABAD - 382430
GUJARAT

Dear Sir,

With reference to your application, we are pleased to inform you that it has been decided to grant you a licence to use the Standard Mark in respect of the following:

Product: **Unplasticized Polyvinyl Chloride (UPVC) Injection Moulded Fittings for Soil and Waste Discharge System for Inside and Outside Buildings Including Ventilation and Rain Water System**

IS No : **IS 14735 : 1999**

Type/Size/Grade/Variety covered under licence :

1) 75MM, 110MM and 160MM DN BEND 45° with socket for solvent cement jointing and Groove socket without door,
2) 110MM X 75MM DN REDUCER with socket for solvent cement jointing and Groove socket,
3) 75MM & 110MM DN SINGLE Y 45° with Groove socket with and without door,
4) 75MM & 110MM DN SINGLE Y 45° socket for solvent cement jointing with and without door,
5) 75MM, 110MM and 160MM DN BEND 87.5° with socket for solvent cement jointing and Groove socket with and without door,
6) 75MM, 110MM and 160MM DN COUPLER with socket for solvent cement jointing and Groove socket,
7) 75MM, 110MM and 160MM DN SINGLE TEE 87.5° with socket for solvent cement jointing and Groove socket with and without door and
8) 75MM DN NAHANI TRAP(WITH JALI)

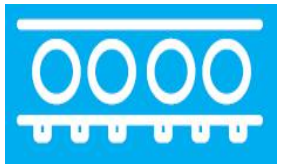
मुख्यालय : मानक भवन, 9 बहादुर शाह जफर मार्ग, नई दिल्ली - 110002.
HEAD OFFICE : MANAK BHAVAN, 9 BAHADUR SHAH ZAFAR MARG, NEW DELHI - 110002.
"For Training Needs, please contact National Institute of Training for Standardization, A-20 & 21 Institutional Area, Sector 60 Noida-201307 at Telephone(s) 0120-24-2201 to 05, 467023, Tel/Fax No. 0120-24-22-2-03, or e-mail : hnits@bis.org.in, nits@bis.org.in."

❖ ASSURANCES

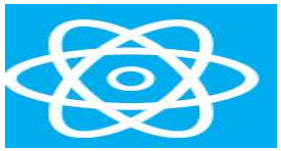
- ❖ STATE OF ART MANUFACTURING FACILITIES

- ❖ ADVANCED MACHINERY FOR CONDESCENDING QUALITY

- ❖ ADVANCED MATERIAL HANDLING SYSTEMS

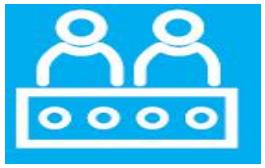


- ❖ 100% INCOMING RAW & PACKING MATERIALS INSPECTIONS



- ❖ HIGH DIMENSIONAL ACCURACY TO MAINTAIN QUALITY OF EACH PIECE, TO ENSURE A PRODUCT DEFFECT FREE

- STRICT QUALITY CHECKS AT EVERY STAGE OF PRODUCTION



- 100% FINISHED GOODS INSPECTION

- MULTIPLE QUALITY CHECKS FOR SWR MOULDED FITTINGS THAT DISPATCHES FROM THE FLOWKEM FACTORY

- LAB TESTS PERFORMED FOR EVERY BATCH PRODUCED

- ROUTINE TEST CARRIED OUT AT EXTERNAL LAB LIKE BIS & CIPET

BIS

CIPET

WHAT IS SWR PIPES AND FITTINGS ?

Flowkem SWR pipes and fittings are used for soil, waste and rain water management. These products are lightweight and easy to install. These 40 mm to 160mm pipes & fittings are used for non-pressure plumbing applications that discharge waste water without leakage. The pipes are manufactured according to internationally accepted quality standards and IS specifications. Flowkem SWR pipes are free from scale formation, rusting, weathering and chemical action. These pipes are immune to bacteria, fungi, micro-organisms, rodent and insect attack. The pipes conform to IS: 13592, while the fittings are manufactured as per IS: 14735. Flowkem SWR pipes and fittings are a permanent solution for sanitation and drainage systems, and are also cost effective compared to other conventional drainage systems in the market.

Flowkem SWR pipes and fittings can be joined together with an integrated ring or a solvent weld i.e. Selfit System. Two different classes of pipes, type A for use in ventilation pipe work and rain water harvesting applications and B for use in soil and waste discharge systems. Selfit fittings are fused with socket joints using solvent cement which makes a permanent homogeneous joint. SWR Pipes and fittings with integrated rings are manufactured on state-of-the-art extruders and socketed on online belling machines. The integrated ring which is pre-fitted in the groove of the socket is permanently positioned by the advanced co-moulded plastic unlike conventional rubber rings which have a tendency to come out during fitment. This forms a water tight joint and absorbs the linear expansion and contraction, keeping the seal intact. These techniques are very simple, and ensure a 100% leak-proof system at a low installation and low maintenance cost. The pipes offer extremely smooth bores, leak proof joints, and a good hydraulic capacity over the total life of the system. Flowkem SWR pipes and fittings are UV stabilised and can be installed outside the building.

WHY ONLY FLOWKEM SWR PIPE AND FITTINGS?

- Flowkem SWR pipes and fittings make leak-proof and ensure proper flow.
- High degree of accuracy at manufacturing ensures perfect dimensional control.
- SWR pipes and fittings are non-reactive to most acids, alkalis, effluents, salt, minerals etc.
- SWR pipes and fittings withstand high flow rates and due to smooth surface there is no scaling or depositions or chocking
- UV Stabilized to protect from direct sunlight while being operational.
- easy to installation and maintenance.
- PVC-U is a non-conductor of electricity, and therefore is not subject to galvanic or electrolytic action.
- Does not support fire and provides good resistance to combustion.
- Corrosion and rust proof which confirms longer durability of the product.
- Cost effective

STANDARDS AND CODES.

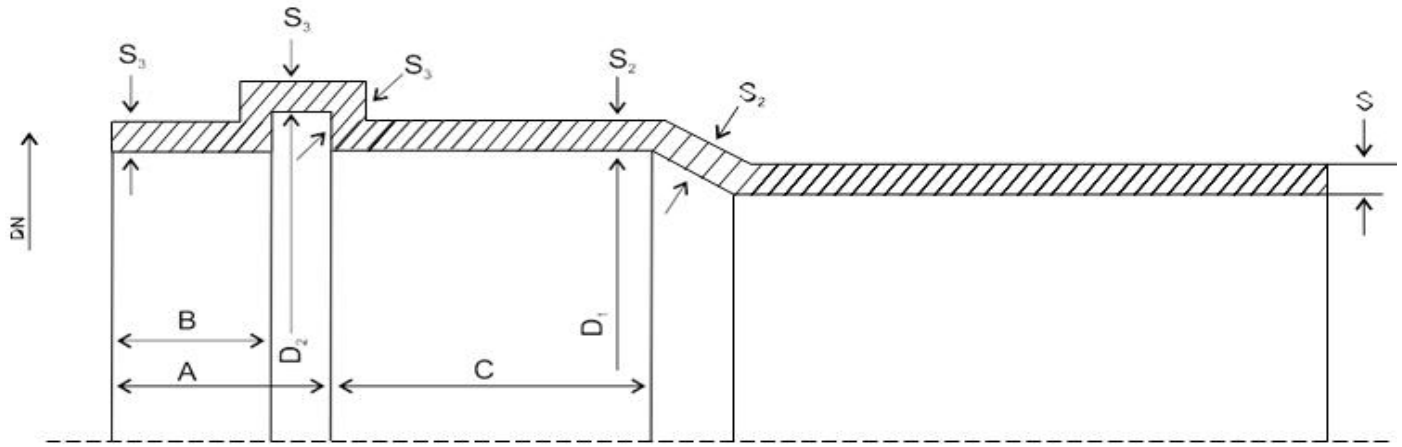
STANDARDS FOR PIPES AND FITTINGS

SWR PIPES AND FITTINGS ARE MANUFACTTURED IN SIZE FOR TYPE A FROM SIZE 40 MM TO 160 MM AND FOR TYPE B AS 40 MM TO 160 MM

Class of pipes/ Fittings	Standard	Sizes available	Class of pipes/ Fittings	Standard	Sizes available
SWR PIPE TYPE A	IS 13592	40 MM TO 160 MM	SWR FITTINGS	IS 14735	40 MM TO 160 MM
SWR PIPE TYPE B	IS 13592	40 MM TO 160 MM	SWR FITTINGS	IS 14735	40 MM TO 160 MM

BASIC PROPERTIES OF UPVC ARE AS BELOW			
Sr. No.	Property	Units	Specified Value
1	Density	g/cm3	1.3-1.45
2	Thermal conductivity	w/(m.k)	0.14 - 0.28
3	Yield strength	MPa	31 - 60
4	Young's modulus	psi	4,90,000
5	Flexural strength (yield)	psi	10,500
6	Compression strength	psi	9500
7	Coefficient of thermal expansion (linear)	mm(mm"c)	5 x 10-5
8	Vicat B	°c	65-100
9	Resistivity	Qm	10^{16}
10	Surface resistivity	Q	10^{13} - 10^{14}

Pipes - Dimensional Details /Technical Specification



Dimensions of pipes

Nominal Outside Diameter DN (mm)	Mean Outside Diameter (mm)		Outside Diameter at Any Point (mm)		Wall Thickness, S Type A (mm)		Wall Thickness, S Type B (mm)	
	Min	Max	Min	Max	Min	Max	Min	Max
75	75.0	75.3	74.1	75.9	1.8	2.2	3.2	3.8
90	90.0	90.3	88.9	91.2	1.9	2.3	3.2	3.8
110	110.0	110.4	108.6	111.4	2.2	2.7	3.2	3.8
160	160.0	160.5	158.0	162.0	3.2	3.8	4.0	4.6

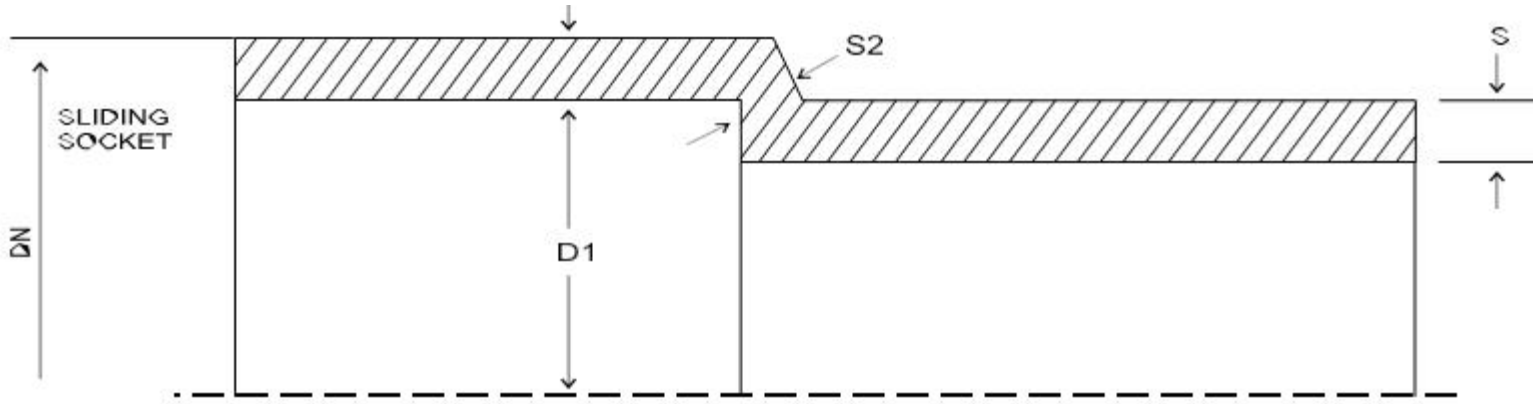
Maximum wall thickness of sockets of pipes

Nominal Ouside Diameter DN	S2,Min (mm)		S3,Min (mm)	
(mm)	Type A	Type B	Type A	Type B
75	1.6	2.9	1.0	2.4
90	1.7	2.9	1.1	2.4
110	2.0	2.9	1.2	2.4
160	2.9	3.6	1.8	3.0

Dimensions of grooved socket

Nominal Outside Diameter DN	Inside Diameter of Socket, D1 (mm)		Inside Diameter of Beading, D2 (mm)		Length of Beading and Neck (mm)	Neck of Socket (mm)	Length Beyond Beading (mm)
					A	B	C
(mm)	Min	Max	Min	Max	Max	Min	Min
75	75.3	76.2	84.5	85.5	20	5	25
90	90.3	91.2	99.5	100.5	23	5	28
110	110.4	111.3	120.3	121.3	26	6	32
160	160.5	161.5	173.8	175.0	32	9	42

Dimensions of socket for solvent cementing



Nominal Outside Diameter DN	Socket Depth, C	Mean Inside Diameter of Socket at Midpoint, D1	
		Min	Max
75	40.0	75.1	75.3
90	46.0	90.1	90.3
110	48.0	110.1	110.4
160	58.0	160.2	160.5

QC Checks SOP at Flowkem

❖**Dimensions:**
To ensure that all pipe dimensions particularly wall thickness and outer dimensions (roundness), confirm to the appropriate standards.
❖**Drop Impact test:** Weights are dropped on the pipe to observe any crack or failure.
❖**Heat reversion test:** How much the pipe changes in length when heated in an oven and left to cool this is a measure of residual stresses left in the pipe during production process.

❖**Tensile strength:**
To find out the maximum stress that our pipe sample can withstand while being stretched or pulled before cracking OR to check the ability of a material to withstand a pulling force.
❖**Stress Relief Test:** The test specimens pipe must not show blisters excessive de-lamination or cracking or signs of weld line splitting after keeping under specified temperature (150°c) and specified time duration in air oven or immersion method.
❖**Vicat Softening Temperature (VST):** To find out the softening point of the material. It is the temperature at which the specimen is penetrated to a depth of 1 mm by a flat ended needle with a 1 mm^2 circular or cross section. OR at which temperature. 1 mm^2 needle will penetrate in hot the sample 1 mm depth under a specified load.
❖**Water tightness of joint:** To ensure the pipe joint are free from leakage when applying internal hydrostatic pressure.
❖**Effect of sunlight:** To check the effect of sunlight on pipes by expose the sample in sunlight for 1600 hours and compare the initial & exposed sample for any physical property changes.

❖**Resistance to H_2so_4 :** To check the resistance of pipe with concentrated sulphuric acid.
❖ **Axial Shrinkage**: To check the percentage change in length or shrinkage of pipe and tested at 90° c.
❖ **Resistance to Di-chloromethane at specified temperature:** To check the gelation in pipe after conducting this test sample should not show any sign of attack.

Handling and Storage

Proper Handling

Please check and inspect the pipes on receipt. The pipes should be checked for any forms of transport damage due to shift in loads or improper handling/treatment. Visually examine the ends of pipes for any cracks or damage.

The pipes should be handled with care. The tendency to throw or drop the pipes to the floor should be avoided. Do not drag or push the pipes from a truck bed. Contact of pipes with from any sharp object should be totally avoided.

Solvent Cementing Instructions

When using solvent cement there are some basic safety measures all users should keep in mind.

Storage of Pipes

The pipes should preferably be stored indoors. When this is not possible, please ensure to:
• Protect the pipes from sun light, to reduce the effect of UV rays.
• Store on level ground and dry surface.
• If pipes of same diameter but different classes are being stacked together, place the thicker pipes below. i.e., Stack type B below type A. If placing pipes on racks, ensure the spacing between the supports does not exceed 3 feet.
• Do not store pipes on metal surfaces exposed to sunlight or reflective.

Installation Guideline For Ring Fit Joint

Step 1: Cutting
Measure and cut pipe to size. Ensure to cut the pipes straight and square. Inspect pipe ends thoroughly before making the cut, if any cracks or split in the ring is noticed cut off a minimum of 25 mm beyond the visible crack before proceeding.

After every application of solvent on the pipe / fitting ensure to put the lid back on the solvent cement containers and tighten the lid slightly to avoid evaporation and escape of solvent.

- Avoid prolonged breathing of solvent vapours. When pipe and fittings are being joined in enclosed areas, please ensure sufficient ventilation.
- Keep the cement away from all sources of ignition, heat, sparks and open flame.
- Keep containers of cement tightly closed except when the product is being used.
- Dispose of all rags used with solvents in a proper outdoor waste bin.
- Avoid eye and skin contact. In case of eye contact, flush with plenty of water for 15 minutes and call a doctor.

Installation Guideline For Pasting Type

Step 1: Cutting

Measure the pipe length accurately and make a visible marking using a felt tip pen. Ensure that the pipe and fittings are size compatible. You can easily cut with a plywood cutting saw/ ratchet cutter or a wheel cutter. Cutting the pipe as squarely as possible (at 90°) provides optimal bonding area within a joint. Inspect pipe ends thoroughly prior to making a joint. If a crack or splintering is noticed cut-off a minimum of 25 mm beyond the visible crack before proceeding.

Step 2: Deburring/ Bevelling

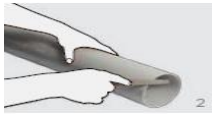
Burrs in and on pipe end can obstruct flow/proper contact between the pipe and socket of the fitting during assembly and should be removed from both in and outside of the pipe. A 15 mm dia half round file/a pen knife or a deburring tool are suitable for this purpose. A slight bevel on the end of the pipe will ease entry of the pipe into the socket of the fitting socket.

Step 4: Solvent Cement Application

Apply an even coat of solvent cement on the pipe and the socket end of the fitting. Do not use thickened or lumpy solvent cement. It should have a flow consistency like that of syrup or paint.

Step 2: Chamfering and Deburring

Burrs in and on pipe end can obstruct flow/proper contact between the pipe and socket of the fitting during assembly and should be removed from both in and outside of the pipe. A 15 mm dia half round file/a pen knife or a deburring tool are suitable for this purpose.
A slight bevel on the end of the pipe will ease entry of the pipe into the socket of the fitting socket.



Step 3: Fitting Preparation

Use a clean dry cloth to wipe the dirt, moisture from the fitting and pipe end.

Step 4: Lubricant

Apply the lubricant on the chamfered end of the pipe.

Step 5: Assembly

Immediately insert the pipe into the fitting socket. Rotate the pipe slightly while inserting. Withdraw pipe until the mark is 12 mm away from socket. This means a 12 mm gap exists between the end of the pipe and the socket register. This gap will allow the pipe to expand without distorting the pipe-work jointing.

Step 3: Fitting Preparation

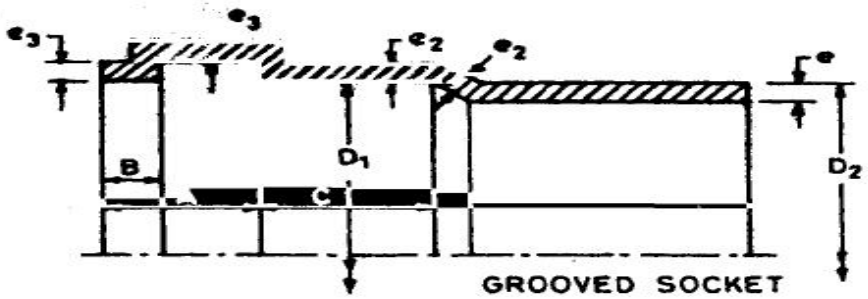
Using a clean dry rag, wipe the dirt and moisture from the fitting sockets and pipe end. Dry fit the pipe to ensure total entry into the bottom of the fittings socket and make a visible marking using a felt tip pen.

Step 5: Assembly

Immediately insert the pipe into the fitting socket, rotate the pipe ¼ to ½ turn while inserting. This motion ensures an even distribution of cement within the joint. Hold the assembly for 10 seconds to allow the joint to setup.

SWR FITTINGS AS PER IS 14735

Technical specification



Sl No.	Nominal Diameter DN	Mean Inside Diameter of Socket at Midpoint D_1		Length of Beading Neck A	Neck of Socket B	Length Beyond Beading C	Mean Outside Diameter of Spigot Portion D_2	
		Min	Max	Max	Min	Min	Min	Max
	mm	mm	mm	mm	mm	mm	mm	mm
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
i)	40	40.1	41.1	18	5	18	40.0	40.3
ii)	50	50.1	51.1	18	5	20	50.0	50.3
iii)	63	63.1	64.1	18	5	23	63.0	63.3
iv)	75	75.1	76.2	20	5	25	75.0	75.3
v)	90	90.1	91.2	23	5	28	90.0	90.3
vi)	110	110.1	111.3	26	6	32	110.0	110.4
vii)	125	125.1	126.4	28	7	35	125.0	125.4
viii)	140	140.2	141.4	30	8	38	140.0	140.5
ix)	160	160.2	161.5	32	9	42	160.0	160.5

Sl No.	Nominal Diameter DN	Wall Thickness At Plain End e		At Socket e_2 Min	At Socket e_3 Min
		Min	Max		
	mm	mm	mm	mm	mm
(1)	(2)	(3)	(4)	(5)	(6)
i)	40	3.2	3.8	2.9	2.4
ii)	50	3.2	3.8	2.9	2.4
iii)	63	3.2	3.8	2.9	2.4
iv)	75	3.2	3.8	2.9	2.4
v)	90	3.2	3.8	2.9	2.4
vi)	110	3.2	3.8	2.9	2.4
vii)	125	3.2	3.8	2.9	2.4
viii)	140	3.6	4.2	3.2	2.7
ix)	160	4.0	4.6	3.6	3.0

Sl No.	Nominal Diameter DN	Socket Depth u	Mean Inside Diameter of Socket at Mid Point D_1		Mean Outside Diameter of Spigot Portion D_2	
		Min	Min	Max	Min	Max
	mm	mm	mm	mm	mm	mm
(1)	(2)	(3)	(4)	(5)	(6)	(7)
i)	40	26.0	40.1	40.3	40.0	40.3
ii)	50	30.0	50.1	50.3	50.0	50.3
iii)	63	36.0	63.1	63.3	63.0	63.3
iv)	75	40.0	75.1	75.3	75.0	75.3
v)	90	46.0	90.1	90.3	90.0	90.3
vi)	110	48.0	110.1	110.4	110.0	110.4
vii)	125	51.0	125.1	125.4	125.0	125.4
viii)	140	54.0	140.2	140.5	140.0	140.5
ix)	160	58.0	160.2	160.5	160.0	160.5

PRODUCT PORTFOLIO OF SWR FITTINGS (RING-TYPE)

Double Y

Size (mm)	Size (In.)	Part No.	STD PKT
75	21/2"	44DY7500	34
110	4"	44DY1100	14

Reducing Tee

Size (mm)	Size (In.)	Part No.	STD PKT
90X75	3" X 21/2"	44RT907500	-
110X75	4" X 21/2"	44RT110750	26
160X75	6" X 21/2"	44RT160750	7
160X110	6" X 4"	44RT160110	7

Double Tee

Size (mm)	Size (In.)	Part No.	STD PKT
75	21/2"	44DT7500	25
110	4"	44DT1100	17

Pipe Clip

Size (mm)	Size (In.)	Part No.	STD PKT
75	2 1/2"	44PC7500	400
110	4"	44PC1100	350
160	6"	44PC1600	

Vent Cowl

Size (mm)	Size (In.)	Part No.	STD PKT
75	2 1/2"	44VC7500	168
110	4"	44VC1100	150

Rubber Lubricant

Size (mm)	Size (In.)	Part No.	STD PKT
50 ml	TIN	44RL50	320
100 ml	TIN	44RL100	192
250 ml	TIN	44RL250	80
500 ml	TIN	44RL500	40

Single Y with Door

Size (mm)	Size (In.)	Part No.	STD PKT
75	21/2"	44SYD7500	24
110	4"	44SYD1100	18

Double Y with Door

Size (mm)	Size (In.)	Part No.	STD PKT
75	21/2"	44DYD7500	30
110	4"	44DYD1100	12

Reducing Tee with Door

Size (mm)	Size (In.)	Part No.	STD PKT
90X75	3" X 21/2"	44RTD90750	-
110X75	4" X 21/2"	44RTD11075	24
160X75	6" X 21/2"	44RTD16075	6
160X110	6" X 4"	44RTD160110	6

Double Tee with Door

Size (mm)	Size (In.)	Part No.	STD PKT
75	2 1/2"	44DTD7500	22
110	4"	44DTD1100	15

Multi Floor Trap without Sq. Jali

Size (mm)	Size (In.)	Part No.	STD PKT
110	4"	44MFT110	40

SHOE BEND 45°

Size (mm)	Size (In.)	Part No.	STD PKT
75	2 1/2"	44B45750	60
90	3"	44B45900	-
110	4"	44B45110	48
160	6"	44B45160	-

Cleansing Pipe

Size (mm)	Size (In.)	Part No.	STD PKT
75	2 1/2"	44CP7500	48
110	4"	44CP1100	30
160	6"	44CP1600	7

Coupler

Size (mm)	Size (In.)	Part No.	STD PKT
75	2 1/2"	44CUP750	88
90	3"	44CUP900	-
110	4"	44CUP110	64
160	6"	44CUP160	-

Bend 87.5°

Size (mm)	Size (In.)	Part No.	STD PKT
75	2 1/2"	44B75000	50
90	3"	44B90000	-
110	4"	44B11000	36
160	6"	44B16000	12

Single Tee

Size (mm)	Size (In.)	Part No.	STD PKT
75	2 1/2"	44ST7500	36
90	3"	44ST9000	-
110	4"	44ST1100	24
160	6"	44ST1600	7

Reducer Coupler

Size (mm)	Size (In.)	Part No.	STD PKT
110x75	4" X 2 1/2"	44R11075	60

Bend 87.5° with Door

Size (mm)	Size (In.)	Part No.	STD PKT
75	2 1/2"	44BD7500	45
90	3"	44BD9000	-
110	4"	44BD1100	30
160	6"	44BD1600	12

Single Tee with Door

Size (mm)	Size (In.)	Part No.	STD PKT
75	2 1/2"	44STD7500	30
90	3"	44STD9000	-
110	4"	44STD1100	20
160	6"	44STD1600	7

PRODUCT PORTFOLIO OF SWR FITTINGS (PASTING-TYPE)

Coupler

Size (mm)	Size (In.)	Part No.	STD PKT
75	2 1/2"	55CUP750	96
90	3"	55CUP900	-
110	4"	55CUP110	68
160	6"	55CUP160	-

Bend 87.5°

Size (mm)	Size (In.)	Part No.	STD PKT
75	2 1/2"	55B75000	56
90	3"	55B90000	-
110	4"	55B11000	45
160	6"	55B16000	12

Single Tee

Size (mm)	Size (In.)	Part No.	STD PKT
75	2 1/2"	55ST7500	43
90	3"	55ST9000	-
110	4"	55ST1100	30
160	6"	55ST1600	7

Single Y

Size (mm)	Size (In.)	Part No.	STD PKT
75	21/2"	55SY7500	32
110	4"	55SY1100	22

Double Y

Size (mm)	Size (In.)	Part No.	STD PKT
75	21/2"	55DY7500	39
110	4"	55DY1100	14

Reducing Tee

Size (mm)	Size (In.)	Part No.	STD PKT
90X75	3" X 21/2"	55RT907500	-
110X75	4" X 21/2"	55RT110750	30
160X75	6" X 21/2"	55RT160750	7
160X110	6" X 4"	55RT160110	7

Reducer Coupler

Size (mm)	Size (In.)	Part No.	STD PKT
110x75	4" X 2 1/2"	55R11075	60

Bend 87.5° with Door

Size (mm)	Size (In.)	Part No.	STD PKT
75	2 1/2"	55BD7500	50
90	3"	55BD9000	-
110	4"	55BD1100	39
160	6"	55BD1600	12

Single Tee with Door

Size (mm)	Size (In.)	Part No.	STD PKT
75	2 1/2"	55STD7500	36
90	3"	55STD9000	-
110	4"	55STD1100	26
160	6"	55STD1600	7

Single Y with Door

Size (mm)	Size (In.)	Part No.	STD PKT
75	21/2"	55SYD7500	30
110	4"	55SYD1100	18

Double Y with Door

Size (mm)	Size (In.)	Part No.	STD PKT
75	21/2"	55DYD7500	30
110	4"	55DYD1100	-

Duro Ring

Size (mm)	Size (In.)	Part No.	STD PKT
75	21/2"	55DR7500	720
110	4"	55DR1100	320
160	6"	55DR1600	-

Double Tee

Size (mm)	Size (In.)	Part No.	STD PKT
75	21/2"	55DT7500	27
110	4"	55DT1100	18

PLAIN SOCKET ELBOW WITH DOOR

Size (mm)	Size (In.)	Part No.	STD PKT
63	2"	55PDE630	-
75	2 1/2"	55PDE750	-
90	3"	55PDE900	-
110	4"	55PDE110	-

PLAIN SOCKET TEE WITH DOOR

Size (mm)	Size (In.)	Part No.	STD PKT
63	2"	55PDT630	-
75	2 1/2"	55PDT750	-
90	3"	55PDT900	-
110	4"	55PDT110	-

Door Cap

Size (mm)	Size (In.)	Part No.	STD PKT
75	2 1/2"	55DC7500	300
110	4"	55DC1100	150

Nahani Trap without Jali

Size (mm)	Size (In.)	Part No.	STD PKT
110 X 63	4" X 2 "	55NT11063	40
110 X 75	4" X 2 1/2"	55NT11075	37
110 X 90	4" X 3"	55NT11090	32
110 X 100	4" X 4"	55NT110100	28

Q Trap

Size (mm)	Size (In.)	Part No.	STD PKT
110 X 110	4" X 4"	55QT110110	18
125 X 110	5" X 4"	55QT125110	18

	Size (mm)	Size (In.)	Part No.	STD PKT
Reducing Tee with Door				
	90X75	3" X 21/2"	55RTD90750	-
	110X75	4" X 21/2"	55RTD11075	24
	160X75	6" X 21/2"	55RTD16075	6
	160X110	6" X 4"	55RTD160110	6
Double Tee with Door				
	75	2 1/2"	55DTD7500	20
	110	4"	55DTD1100	14
Shoe Band 45°				
	75	2 1/2"	55B45750	72
	90	3"	55B45900	-
	110	4"	55B45110	48
	160	6"	55B45160	12
Cleansing Pipe				
	75	21/2"	55CP7500	50
	110	4"	55CP1100	30
	160	6"	55CP1600	7

	Size (mm)	Size (In.)	Part No.	STD PKT
Multi Floor Trap Square Jali				
	160	6"	55MFTSQ160	110
Round Jali				
	110	4"	55RJ1100	460
P Trap				
	110X110	4" X 4"	55PTS110	19
	125X110	5" X 4"	55PT125110	18
S Trap				
	110X110	4" X 4"	55ST110110	12
	125X110	5" X 4"	55ST125110	12
LIP Ring				
	125X110	5" X 4"	55LR125110	-

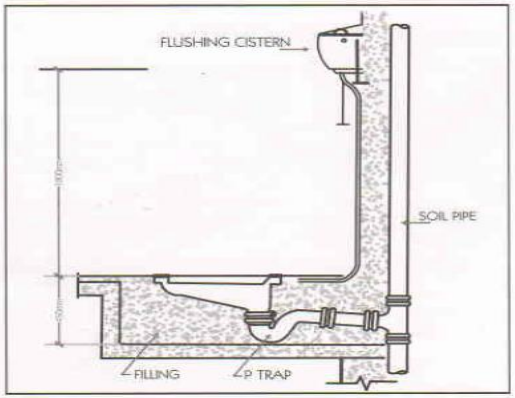
INSTALLATION OF TRAPS

Select right type of trap from **“P" / “Q”/ "S"** traps as per the outlet angle required. Place the trap on firm base, pour with concrete on a slab and set it relative to the level of finished floor.

• Concrete can be poured around **"P" / "Q" / "S"** trap but Outlet to the trap must be left open clear to concrete.

• Place ASTRAL W.C. connector ring to the socketed end of trap.

TYPE OF COMMON INSTALLATION



SOLVENT WELD JOINING METHOD :

1. CUT PIPE : Cut pipe square as joints are sealed at the base of the fitting socket. An angled cut may result in joint failure.
2. REMOVE BURR AND BEVEL : Remove all burr from inside and outside of pipe with a knife-edge file, or deburring tool. Chamfer (bevel) the end of the pipe 10° -15°

CLEAN : Remove surface dirt, grease, or moisture with a clean dry cloth.

3. DRY FIT : With light pressure, pipe should go one third to one half of the way into the fitting socket. Pipes and fittings that are too tight or too loose should not be used.
4. CEMENT : Apply a full even layer of cement to the outside of a pipe and medium layer of cement to the inside of a fitting.
5. JOIN PIPE AND FITTINGS : Assemble pipe and fitting socket till it contacts socket bottom. Hold pipe and fitting together until the pipe does not back out. Remove excessive cement from the exterior. A properly made joint will show a continuous bead of cement around the perimeter.

FIELD OF APPLICATION

FLOWKEM SWR pipes and fittings are used for soil, waste and rain water management. These products are lightweight and easy to install. Pipes & fittings are used for non-pressure plumbing applications that discharge wastewater without leakage. Two different classes of pipes, type A for rainwater and B for soil, waste and vent are available.

Waste discharge system in residences, commercial complexes, resorts, hospitals, academic institutes.

- **An ideal replacement for CI and GI piping.**
- **Venting of gases and odors in domestic plumbing.**
- **Non-pressure industrial drainage application (based on chemical compatibility).**
- **Rain water transportation and harvesting for residential & commercial buildings.**

Note: Not suitable for compressed air and gases.

FLOWKEM POLY PLAST PRIVATE LIMITED

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Plant : Survey No./ Block No.: 417, 418, 419, Near Amba Hotel, New Mirjapur Cut, Nr. Mirjapur, Ahmedabad - Indore Highway, Vill.: Chamla, Tal.: Dehgam, Dist.: Gandhinagar, Gujarat - 387 610. INDIA.
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