

Sintex

SWRX

PVC PLUS

NEXT-GEN SEWARAGE, WASTE RAIN WATER SYSTEM

Technical Manual



**ANTI
RODENT***



Sintex

SWRX

PVC PLUS

Next-gen Sewarage, Waste Rain Water System



ANTI
RODENT*

the promise of life in every drop

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OUR LEGACY

Welspun®

Pioneering Growth, Inspiring Change

Welspun has established a strong presence across a diverse range of industries, excelling in sectors such as home textiles, advanced textiles, and flooring solutions. The company has also made significant strides in retail, infrastructure, and warehousing, while maintaining leadership in manufacturing line pipes, DI pipes, stainless steel & alloys, pig iron, and TMT rebars.





Our Vision

Our goal is to enhance customer satisfaction through innovation and technology, while driving inclusive and sustainable growth to maintain excellence across all our businesses.

Our Mission

Our goal is to enhance customer satisfaction through innovation and technology, while driving inclusive and sustainable growth to maintain excellence across all our businesses.

A dedicated workforce of over
30,000
employees
across international locations

Serving more than
100,000
shareholders

Operating in over
50
countries

20+
state-of-the-art
manufacturing
facilities
in India, the USA,
KSA, and beyond

Achieving a
turnover of
5 Billion
USD

2nd
largest
producer of large
diameter pipes
globally



SAAF.
SAFE.
SAHI



Built on trust, engineered for tomorrow

For over 50 years, Sintex has been a cherished name in water storage across India, trusted by generations to safeguard every precious drop. A legacy built on reliability and innovation, Sintex continues to lead with cutting-edge technology, ensuring homes and businesses have access to the highest standards of water safety—today and for years to come.

Our Promise

Saaf, Safe, Sahi.

Integrated into the
Welspun Group, a

5 billion

USD global
conglomerate

Leading water
storage brand in
India for over

50 years

Industry Leaders

Recognised as
category creators
and pioneers with
exceptional quality
and motivation.

Offering tanks from

200 litres to

16 lakh litres





TRUST OF SINTEX, NOW IN PIPES

HOT & COLD
WATER SYSTEM



POTABLE
WATER SUPPLIES



SEWARAGE, WASTE
RAIN WATER SYSTEM



DRAINAGE SYSTEM



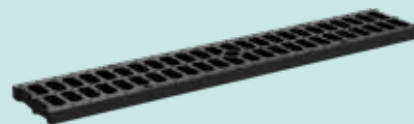
AGRICULTURAL
WATER PIPE



RECYCLE WATER
SUPPLIES



SURFACE DRAINAGE
WATER SYSTEM



PIPES



4P RANGE TANKS



POPULAR RANGE TANKS

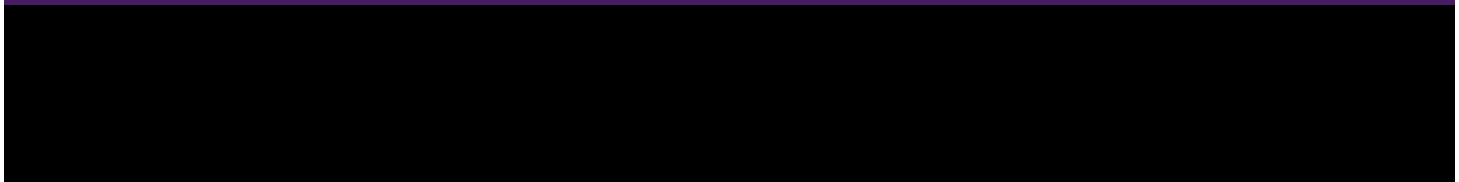
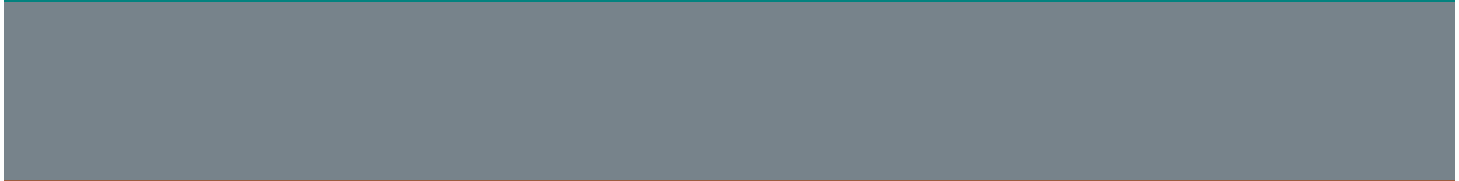
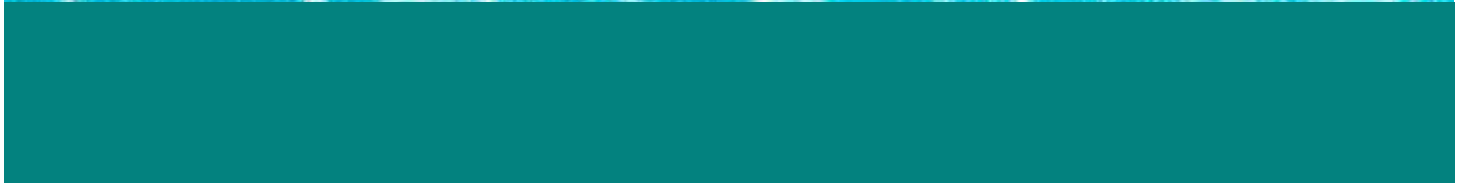


TANKS

A SOLUTION FOR EVERY NEED

A wide range of tanks and pipes growing to meet your needs







Sintex Pipes

Agricultural
Water System

Drainage
Water System

Sewerage
Waste & Rain
Water System

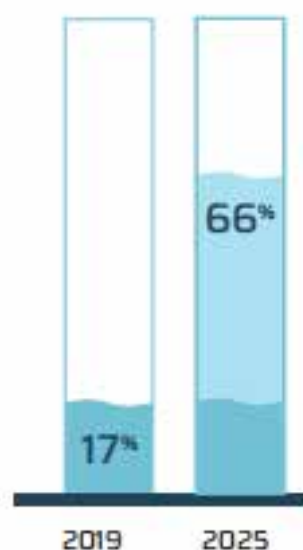
Potable
Water System

Hot & Cold
Water System

Recycle Water
Supplies

Surface Drainage
Water System

The State of Water Access & Water Safety in India



Piped water access in rural India has surged from 17% in 2019 to 66%*, marking a major improvement.

1.5 Million



Yet, waterborne diseases still claim the lives of approx 1.5 million children under five annually.



Our Commitment

As pioneers in water management, we strive to redefine industry standards, through continuous innovation and improvement, ensuring water that is

Saaf
Safe
Sahi



How we do it

Sintex NXT Advantage comprises of breakthrough innovations that redefine water management across our entire range of pipes and tanks. Designed to meet evolving consumer needs, it integrates technology to ensure superior durability, safety, and hygiene.



ANTI RODENT



UV RESISTANT



ASSURED QUALITY



ANTI BACTERIAL



Sintex

SWRX

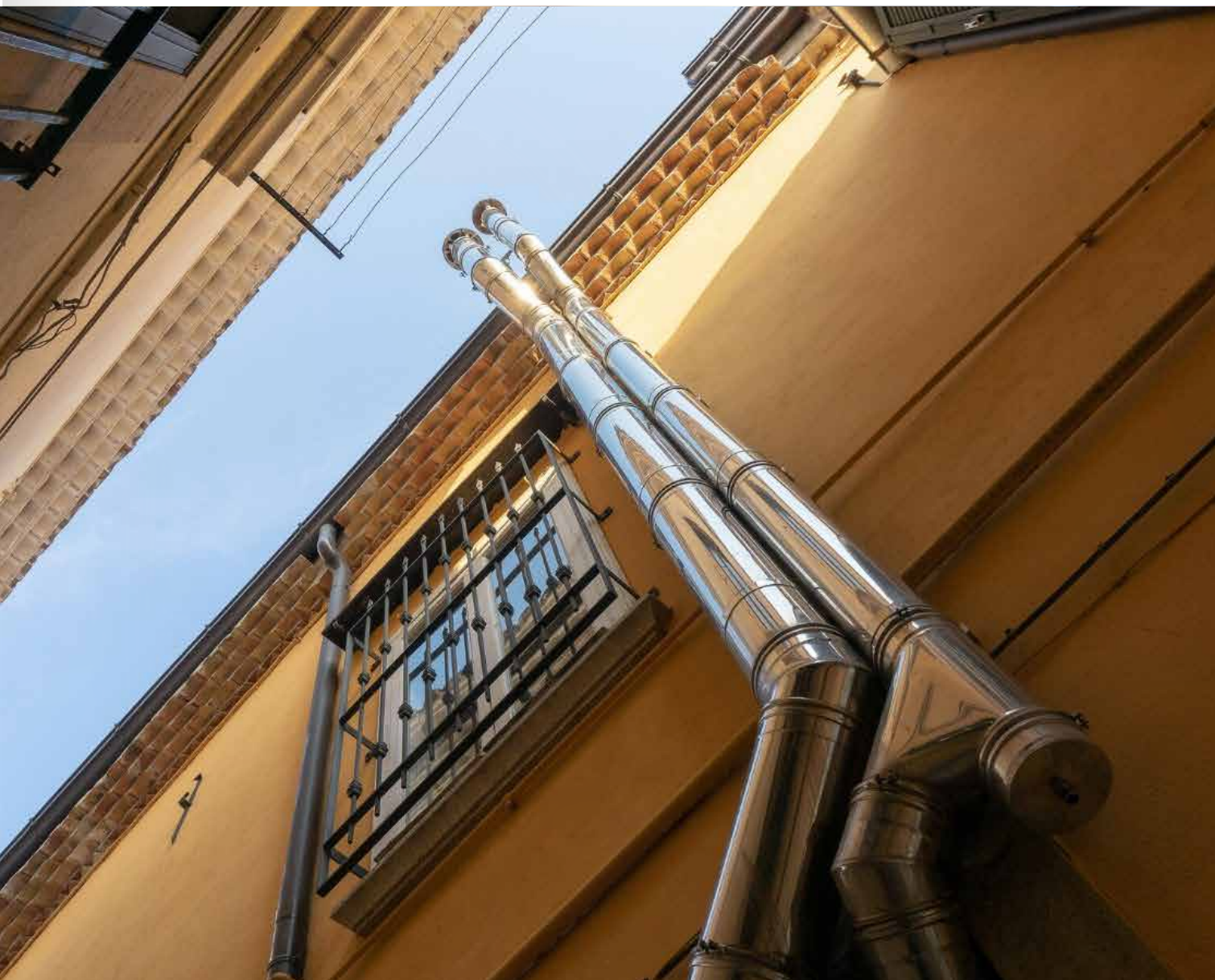
Sewerage Waste Rain water system

PVC PLUS

Sintex SWRX pipes are made from a single layer of high-quality PVC material that is specifically engineered to resist rodent damage. These pipes feature a smooth inner surface for unobstructed flow and are lightweight, making them easy to handle and install. Additionally, they are corrosion and chemical resistant, ensuring superior durability in diverse environmental conditions.



**ANTI
MICROBIAL**



Areas of Use



Industrial Applications



Commercial Plumbing Systems



Residential Plumbing Systems

SWR (Soil, Waste, and Rainwater) pipes are widely used across industrial, commercial, and residential sectors for efficient drainage and waste disposal. In industries, they manage chemical and wastewater discharge. Commercial buildings use SWR pipes for restrooms, kitchens, and rainwater management systems. In homes, they handle soil and waste discharge from bathrooms and kitchens.





Sewage, Waste & Rain Water System

Sintex SWRX

A Sewage, Waste & Rain Water system is a vital component in any building, designed to efficiently collect and transport wastewater from bathrooms, kitchens, and other sanitary fixtures to a proper disposal or treatment system. For long-term reliability and effective performance, the system must be built with durable, high-quality piping solutions.

Sintex introduces **SWRX Pipes & Fittings**, with **NXT Advantage of Anti-Rodent Technology**, a groundbreaking solution specifically designed to tackle one of the most common and costly issues in plumbing systems—rodent damage. Rodents like rats and squirrels are notorious for chewing on plastic pipes, causing leaks, blockages, and even potential system failures. This not only leads to expensive repairs but can also result in hygiene problems and system downtime, particularly in residential, commercial, and industrial settings.

SINTEX SWRX PIPES

- Designed specifically for soil, waste, and rainwater management, SWR pipes and fittings provide efficient flow solutions.
- Crafted from high-quality uPVC material, ensuring durability and reliability.
- Outer diameters (OD) range from 75mm to 160mm, with BIS standards allowing for sizes between 40mm and 315mm.
- Intended for non-pressurized drainage tasks, they are optimal for wastewater discharge systems.
- Specifications: Pipes adhere to IS 13592-2013, while fittings comply with IS 14735- 2013 standards.
- These pipes offer a lasting, cost-effective answer for both sanitation and drainage needs.
- Used in applications like roof vents or Drain-Waste-Vent (DWV) systems, they allow airflow into the drainage system to maintain stable air pressure too.

Sintex **SWRX** pipes are made from a **single layer of high-quality PVC material** that is specifically engineered to resist rodent damage. These pipes feature a **smooth inner surface** for unobstructed flow and are **lightweight**, making them easy to handle and install. Additionally, they are **corrosion and chemical resistant**, ensuring superior durability in diverse environmental conditions.

With **Sintex SWRX**, you get the combined benefits of enhanced **rodent resistance**, **easy installation**, and long-lasting performance, making them the perfect choice for **residential, commercial, and industrial drainage systems**. Trust Sintex SWRX for a reliable, **cost-effective**, and **safe** solution for all your drainage needs.

PRODUCT MARKING

- Text on Type A is in Blue Color.
- Text on Type B is in White Color.

Range

Type	Product	Sub-Type	Text Colour	Size (mm)	Length	Photo
Type A	Pipes	Ring Fit	Blue	75-160	1.8 - 6	
		Sol Fit	Blue	75-160	3-6	
Type A	Pipes	Ring Fit	White	75-110	3	
		Sol Fit	White	75-160	3-6	
Type A and Type B	Fittings	Ring Fit	NA	75-160	NA	
		Sol Fit	NA	75-160	NA	

Solvent Cement SKUs - PVC		
Packaging Type	SKUs	Photos
Co-Ex Bottle	50 ML	
	100 ML	
	250 ML	
Tin	500 ML 1L	
Lubricant	100 GM	
	250 GM	
	500 GM	



Sintex's NXT Advantage for Sintex SWRX Pipes & Fittings

Feature	Technical Advantage	Benefit
Antimicrobial UPVC Pipes & Fittings	Rodent Resistance: Sintex SWRX pipes are engineered with anti-rodent technology, specifically designed to prevent damage caused by rodents like rats and squirrels.	Prevents costly repairs: Eliminates damage from rodent chewing, reducing leaks and blockages.
		Enhanced system reliability: Minimizes the risk of system failure.

Other Features and Benefits of Sintex SWRX SWR Pipes & Fittings



STRONGER, RESILIENT, AND LIGHTWEIGHT

The **Sintex SWRX system** is known for its exceptional durability and resilience. The SWR pipes and fittings offer impressive mechanical strength and high impact resistance. Despite their toughness, this drainage system remains lightweight, making transportation, installation, and long-term service effortless.



CHEMICAL RESISTANT

The **Sintex SWRX PVC Sewage, Waste and Rain Water system** is highly resistant to a wide range of acids, alkalis, effluents, salts, minerals, and aggressive soils. This superior chemical resistance ensures the system remains unaffected by these substances, extending its lifespan and ensuring trouble-free operation.



CORROSION RESISTANCE

Due to the inert nature of the **Sintex SWRX PVC drainage Sewage, Waste and Rain Water system**, it is fully resistant to corrosion. The SWR pipes and fittings eliminate the need for wrapping, coating, or lining, ensuring a long operational life. The robust design of the **Sintex SWRX system** guarantees reliable performance and superior durability, making it an ideal choice for effective drainage solutions.



FLAMMABILITY

The **Sintex SWRX pipes** are non-combustible and inherently resistant to ignition. Even when exposed to a heat source, these pipes are difficult to ignite and will self-extinguish once the heat source is removed.



ECONOMICAL

The **Sintex SWRX uPVC drainage system** provides a cost-effective alternative to traditional drainage systems, offering both value and reliability in a long-term solution.



QUICK AND EASY INSTALLATIONS

The **Sintex SWRX pipes and fittings** can be easily connected using either a rubber ring or solvent weld system. These simple installation techniques ensure a completely leak-proof system, reduce installation time, and minimize maintenance requirements.



UV STABILIZED

The **Sintex SWRX PVC Sewage, Waste & Rain Water system** is UV stabilized, providing protection while being operational even under direct sunlight, ensuring the system's longevity in outdoor environments.



HIGH FLOW RATES

With exceptionally smooth bores, precision joints, and a lack of internal projections, **Sintex SWRX pipes** deliver unmatched hydraulic capacity, maintaining high flow rates throughout their entire lifespan.



NON-CONDUCTIVE

The **Sintex SWRX pipes and fittings** are non-conductive, which means they are not susceptible to galvanic or electrolytic action, offering enhanced safety and reliability.



ENVIRONMENTAL IMPACT

uPVC has a lower feedstock energy compared to other polymers and common building materials. It is the least energy-intensive of all thermoplastics. Life cycle analysis and independent studies show that PVC's environmental impact is highly favorable. By using Sintex SWRX pipes, the consumption of global natural resources is minimized, and the system is recyclable after its prolonged service life, leaving no harmful impact on air, water, or land during manufacturing or operation.



VERSATILE AND ELEGANT

The physical properties of Sintex SWRX pipes offer designers flexibility, allowing the creation of pipes and fittings with exceptional finishes, making them ideal for a wide range of applications while maintaining aesthetic appeal.

Specialty Fittings

(Middle of the Wall Fittings)

Flexible PVC Waste Pipe or Corrugated Waste Pipe (SWR)

Flexible PVC waste pipes, commonly known as Corrugated Waste Pipes, are a type of plumbing pipe designed for use in wastewater and drainage systems. Corrugated Waste Pipe (SWR) refers to the type of pipe that has a ribbed or corrugated surface, which is an integral design feature that gives the pipe flexibility while maintaining strength. They are typically made from flexible polyvinyl chloride (PVC), which provides durability and flexibility. These pipes are commonly used in residential, commercial, and industrial plumbing systems for the safe transportation of waste water, including rainwater, sewage, and other waste liquids.

Range- 35 MM

Pan Connector (SWR)

A **Pan Connector** is a type of plumbing fitting commonly used in **SWR (Soil, Waste, and Rainwater) systems**. It serves as a crucial component to connect a **toilet pan (commode) to the drainage system**, directing waste from the toilet to the soil stack or sewer line. The pan connector helps create a secure, leak-proof, and efficient waste flow, ensuring that the system functions properly without any leakage or blockages.

Range- 11X25 CM in straight configuration

Types of Sintex SWRX

SWR pipes are available in two main types:

- Type A: Designed specifically for rainwater and ventilation applications
- Type B: Intended for handling soil and waste discharge

These pipes and fittings are offered in two connection systems:

- Ringfit: Uses a rubber ring for a secure, leak-proof connection
- Selfit System: Features a self-locking design for easy and reliable installation

Ringfit (Push-Fit)

- Integrated ring in the groove allows for fast, easy installation.
- Spigot end simply pushes into the socket—no threading or adhesive needed.
- PTFE and EPDM rings ensure a strong, leak-proof seal, handling pressures up to 5 kg/cm².
- Accommodates thermal expansion and contraction; joints can be reopened for adjustments.
- Expansion rate is 0.06 mm/m/°C, with a 2m pipe expanding by 2.4 mm for a 20°C rise.
- Low installation and maintenance costs.

Selfit

- Selfit pipes have one plain end and one socketed end
- Ideal for concealed drainage and recommended for horizontal installations, as they're not exposed to sunlight, avoiding issues with expansion and contraction
- Joints are made with solvent cement, creating a permanent, watertight seal

Other variants of SWR are Low Noise Pipes. Pipes are made of three layers – Outer & inner layers are made of UPVC & the middle layer is made of mineral-reinforced polypropylene.



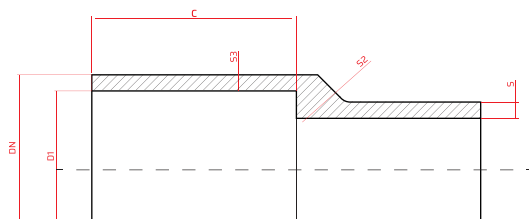
Why Push Fit? (Ring-Fit)

Sintex Pushfit Pipes and Fittings are manufactured in accordance with IS 13592: 2013 and IS 14735: 1999. This system comes with a pre-fitted rubber in the groove, ensuring a leak-proof joint. The system is joined simply by pushing the spigot end into the socket end, requiring no threading or solvent adhesive. The spigot end is securely held in the socket, guaranteeing a 12 leak-proof joint that can withstand high-pressure flow. This system is produced using high- tech, next-generation machinery, providing exceptional performance, strength, and finish.

The advanced Sintex Push – Fit not only ensures the joints withstand high pressure and remain leak-proof but also accommodates the thermal expansion and contraction of plastic. Since the joint is not fixed with solvent adhesive, it can be reopened hours after installation to realign, replace, or adjust the pipe/fitting.

- Quick, easy, and convenient installation
- Corrosion and abrasion resistance
- Smooth interior – free of incrustations
- Tough and reliable
- Cost-effective

Technical Specification for Push Fit System



Dimensions of Pipe								
Nominal Outside Diameter (DN)	Mean Outside Diameter		Outside Diameter at any point (mm)		Wall Thickness Type A (mm)		Wall Thickness Type B (mm)	
(mm)	Min	Max	Min	Max	Min	Max	Min	Max
75	75	75.3	74.1	75.9	1.8	2.2	3.2	3.8
90	90	90.3	88.9	91.2	1.9	2.3	3.2	3.8
110	110	110.4	108.6	111.4	2.2	2.7	3.2	3.8
160	160	160.5	158	162	3.2	3.8	4	4.6
200	200	200.6	197.6	202.4	-	-	4.9	5.6
250	250	250.8	247	253	-	-	6.2	7.1
315	315	316	311.2	318.8	-	-	7.7	8.7

Maximum wall thickness of sockets of pipes

Nominal Outside Diameter DN (mm)	S2, Min (mm)		S3, Min (mm)	
	Type A	Type B	Type A	Type B
75	1.6	2.9	1	2.4
90	1.7	2.9	1.1	2.4
110	2	2.9	1.2	2.4
160	2.9	3.6	1.8	3
200	-	4.4	-	3.7
250	-	5.5	-	4.7
315	-	6.9	-	5.8

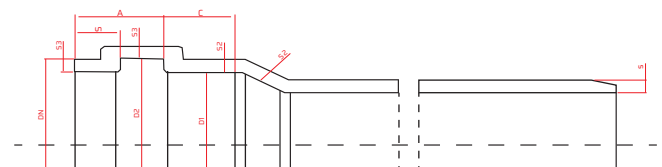
Dimensions of Grooved socket

Nominal Outside Diameter DN (mm)	Inside Diameter of Socket, D1 (mm)		Inside Diameter of Beading, D2 (mm)		Length of Beading & Neck (mm)	Neck of Socket (mm)	Length of Beyond Beading (mm)
					A	B	C
	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	32	9	42
200	200.6	201.8	214	215.4	40	15	50
250	250.8	252	264	265.4	70	15	55
315	316	317.2	329	330.4	70	15	62

Why Solfit? (Solvent fit)

Sintex Solfit Pipes and Fittings are manufactured according to IS 13592: 2013 and IS 14735: 1999 Sintex Solfit systems are joined using PVC solvent adhesive. Produced with cutting-edge technology, these systems offer unmatched performance, strength, and finish.

- 100% leak-proof joints
- High flow rates - no choking
- High degree of dimensional accuracy
- Cost-effective



- Solfit is often the preferred option for gravity-based systems where low-pressure conditions are expected. The joint strength provided by solvent welding ensures tight long-lasting connections without the need for mechanical seals.
- Solfit is used when the system is enclosed/under concrete too.

Technical Specification for Solfit System

Dimensions of Pipe

Maximum wall thickness of sockets of pipes

Nominal Outside Diameter (DN)	Mean Outside Diameter		Outside Diameter at any Wall Thickness		S Type A (mm)		S Type B (mm)	
			Point (mm)		Min		Max	
(mm)	Min	Max	Min	Max	Min	Max	Min	Max
40	40	40.3	39.5	40.5	1.8	2.2	3.2	3.8
50	50	50.3	49.4	50.6	1.8	2.2	3.2	3.8
63	63	63.3	62.2	63.8	1.8	2.2	3.2	3.8
75	75	75.3	74.1	75.9	1.8	2.2	3.2	3.8
90	90	90.3	88.9	91.2	1.9	2.3	3.2	3.8
110	110	110.4	108.6	111.4	2.2	2.7	3.2	3.8
140	140	140.5	138.3	141.7	2.9	3.4	3.6	4.2
160	160	160.5	158	162	3.2	3.8	4	4.6
200	200	200.6	197.6	202.4	-	-	4.9	5.6
250	250	250.8	247	253	-	-	6.2	7.1
315	315	316	311.2	318.8	-	-	7.7	8.7

Nominal Outside Diameter DN	S2, Min (mm)		S3, Min (mm)	
(mm)	Type A	Type B	Type A	Type B
40	1.6	2.9	1	2.4
50	1.6	2.9	1	2.4
63	1.6	2.9	1	2.4
75	1.6	2.9	1	2.4
90	1.7	2.9	1.1	2.4
110	2	2.9	1.2	2.4
140	2.6	3.2	1.6	2.7
160	2.9	3.6	1.8	3
200	-	4.4	-	3.7
250	-	5.5	-	4.7
315	-	6.9	-	5.8

Dimensions for socket for solvent adhesive

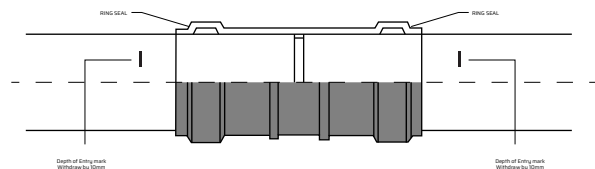
Nominal Outside Diameter DN	Socket Depth, C	Mean Inside Diameter of Socket at Midpoint, D1	
(mm)	(mm)	Min	Max
40	26	40.1	40.3
50	30	50.1	50.3
63	36	63.1	63.3
75	40	75.1	75.3
90	46	90.1	90.3
110	48	110.1	110.4
140	54	140.2	140.5
160	58	160.2	160.5
200	60	200.3	200.6
250	60	250.4	250.8
315	60	315.4	316

Physical & Mechanical Properties of Push Fit

THERMAL EXPANSION

VC has an expansion coefficient of around 0.06mm/m/°C. As a result, a 2m length of soil or waste pipe will expand by 2.4mm with a 20°C increase in temperature. This thermal expansion is factored into the design of systems and components and must be accounted for during installation. It is crucial to allow for this movement by incorporating an expansion gap at ring seal joints. To achieve this, the spigot should be fully inserted into the ring seal socket, marked at the socket face, and then withdrawn by 10mm. A final check should be performed to ensure the expansion gap remains intact during further installation steps.

TYPICAL RING SEAL JOINT





Quality Assurance Procedures (QAP) at Sintex

The pipes and fittings manufactured at Sintex undergo a rigorous quality control process before being released into the market, ensuring that users receive a defect-free system. These processes adhere to the highest specifications of BIS (India).

FOR PIPES

1. Dimensions: To ensure that all pipe dimensions, especially wall thickness and outer diameter (roundness), meet the appropriate standards.

2. Flattening Test: Samples are compressed so that opposite walls come together without the pipe cracking, serving as a measure of proper extrusion techniques during production.

3. Drop Impact Test: Weights are dropped onto the pipe to check for cracks or failures.

4. Heat Reversion Test:

This test measures the change in the pipe's length when heated in an oven and left to cool, indicating residual stresses left in the pipe during the production process.

5. Tensile Strength: To determine the maximum stress the pipe sample can withstand when being stretched or pulled before breaking, or to assess its ability to resist a pulling force.

6. Stress Relief Test: Tested pipe specimens should not show blisters, excessive delamination, cracking, or signs of weld line splitting after being kept under a specified temperature (150°C) for a specified duration, either in an air oven or through immersion.

7. Vicat Softening Temperature (VST): To determine the softening point of the material, this test measures the temperature at which a flat-ended needle with a 1 mm² circular or square cross-section penetrates the sample by 1 mm under a specified load.

8. Water Tightness of Joint: To ensure the pipe joints are free from leakage when subjected to internal hydrostatic pressure.

9. Effect of Sunlight: To assess the impact of sunlight on pipes, the sample is exposed to sunlight for 1600 hours, and any physical property changes are compared between the initial and exposed samples.

9. Effect of Sunlight: To assess the resistance of pipes to concentrated sulfuric acid.

10. Axial Shrinkage: To measure the percentage change in length or shrinkage of pipes when tested at 90°C.

11. Resistance to Dichloromethane at Specified Temperature: To evaluate the gelation in pipes. After testing, the sample should show no signs of attack.

FOR FITTINGS

1. Dimensions Check: To ensure the fittings have the correct dimensions, particularly wall thickness, socket diameters, and socket depth.

2. Drop Impact Test: To evaluate the mechanical properties of fittings by dropping them freely, in a random position, from a specified height and temperature onto a flat concrete floor.

3. Stress Relief Test: Tested fittings must show no blisters, excessive delamination, cracking, or signs of weld line splitting after being kept at a specified temperature (150°C) for a specified duration in an air oven or through the immersion method.

4. Vicat Softening Temperature (VST):

To determine the softening point of the material. This is the temperature at which a flat-ended needle with a 1 mm² circular or square cross-section penetrates the specimen by 1 mm under a specified load.

5. Resistance to H₂SO₄: To assess the resistance of fittings to concentrated sulfuric acid.

6. Water Tightness of Joint: To ensure the fittings joints are free from leakage when subjected to internal hydrostatic pressure.

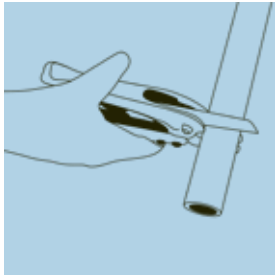
7. Titanium Dioxide Content Test: To determine the weathering properties of fittings by checking the percentage of titanium dioxide present in the fittings.

8. Sulphated Ash Content Test: This test measures the amount of residual substance that doesn't volatilize from a sample when ignited in the presence of sulfuric acid. It is used to determine the content of inorganic impurities in an organic substance.

Installation Guidelines

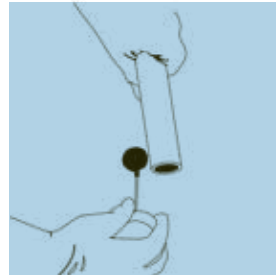
Here's a step-wise procedure for installing **Ringfit and Selfit SWR (Soil, Waste, and Rainwater) pipes and fittings**, ensuring leakproof connections:

Ringfit SWR Pipes and Fittings



Cutting

- Cut the pipe squarely using a hacksaw.
- Smooth the edges to remove burrs.



Clean the Pipe and Ring Socket

- Wipe the pipe's outer surface and the rubber ring in the fitting socket with a clean, dry cloth.
- Ensure the rubber ring is correctly positioned in its groove.



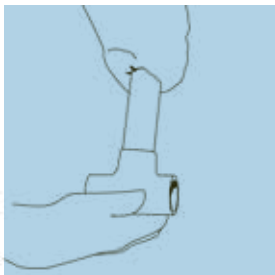
Chamfer the Pipe

- Chamfer the pipe end at a 15° angle for smooth insertion.



Lubricate the Pipe and Rubber Ring

- Apply a thin layer of silicone lubricant or soapy water on the chamfered pipe end and the rubber ring inside the socket.



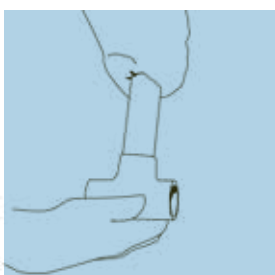
Mark the Insertion Depth

- Insert the pipe into the socket without forcing it and mark the insertion depth.



Insert the Pipe

- Align the pipe with the socket and push it straight into the fitting until it reaches the marked depth.
- Do not twist the pipe during insertion, as this might dislodge the rubber ring.



Check the Joint

- Ensure the pipe is fully seated without any gaps between the socket and pipe.



Testing

- Once the assembly is complete, test the system for leaks by filling it with water or conducting an air pressure test.

Installation Considerations

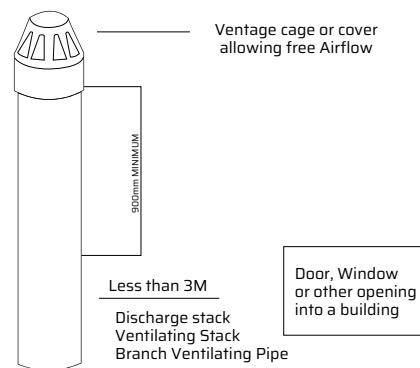
Horizontal Suspended Pipes

Since plastic is subject to thermal movement, we recommend securing the pipe sockets firmly with brackets to prevent any unwanted movement. This ensures that any thermal expansion is absorbed by the expansion coupling, which helps prevent the pipe from buckling between the supports. Please note that intermediate pipe brackets are for support only and must not restrict the pipe's movement. The British Standard BS EN 12056-2:2000 suggests that pipes should be supported at the following intervals.

Material	Pipe Diameter (mm)	Horizontal (m)	Vertical (m)
Unplasticized polyvinyl chloride (uPVC)	40	0.5	1.2
	50	0.5	1.5
	63	0.7	1.5
	75	0.8	2
	90	0.9	2
	110	1.1	2
	140	1.4	2
	160	1.6	2
	200	2	2.5
	250	2	2.5
	315	2	2.5

Ventilation of Soil and Waste System

Ventilation of a soil and waste system is essential to prevent water seals in traps from being broken due to negative pressure or pressure fluctuations within the system. Broken seals allow foul air and odors to escape, contaminating the air inside and around the building. There are two methods of ventilating a soil stack: externally to the atmosphere or using an Air Admittance Valve (AAV) located in a non-inhabited space within the building. The termination of an externally vented system must comply with the dimensional requirements as shown in the diagram below.



Testing of System (Post Installation)

A smoke test or water test is commonly performed to ensure that SWR systems are installed correctly.

Water Test

A water or hydrostatic test is typically used to inspect a completed plastic piping system installation and is the procedure recommended by Sintex. It is also the most widely recommended test in plumbing code standards. The purpose of the test is to identify any leaks at the joints and correct them before the system is put into operation.

Since it is crucial to visually inspect the joints, a water test should be performed before closing in the piping or backfilling behind the wall or floor.

To isolate each floor or section being tested, test plugs are inserted through fittings in the stack. All other openings should be sealed with test plugs or test caps. Fill the system to be tested with water at the highest point. As water fills a vertical pipe, it creates hydrostatic pressure, which increases as the water height in the vertical pipe increases. Sintex recommends testing at 5m of hydrostatic pressure (0.5 kg/cm²) or following the local

authority's guidelines. Filling the system slowly allows any trapped air to escape as the water rises. All entrapped air should be expelled for accurate test results. Once the stack is filled to the desired water column level, visually inspect the section being tested for leaks. If a leak is found, corrective actions should be taken to identify the cause and repair or replace the joint. Fifteen minutes after proper air-venting is a suitable duration for the water test. After a successful test, the system should be drained, and the next section should be prepared for testing.

Preparing the Pipeline for Test

- Inspect all joints to ensure the correct alignment of the mark or groove to the coupling socket.
- Ensure that the minimum cure time has passed since the last solvent adhesive joint was applied.
- Check the tightness of all ties and clamps and ensure the correct positioning of the piping.

SWR systems are classified as non-pressure systems and are inherently designed for gravity flow only.

Handling and Storage

Proper Handling

Proper Handling Upon receipt, inspect the pipes carefully for any transport damage caused by load shifting or improper handling. Visually examine the ends of the pipes for cracks or any other damage. Pipes should be handled with care—avoid throwing or dropping them onto the floor. Do not drag or push pipes from a truck bed. Ensure pipes do not come in contact with sharp objects.

Storage of Pipes

Pipes should ideally be stored indoors. If indoor storage is not possible, make sure to:

- Protect pipes from sunlight to minimize the effects of UV rays.
- Store pipes on level ground and a dry surface.
- When stacking pipes of the same diameter but different classes, place thicker pipes at the bottom. For example, stack type B below type A. If storing pipes on racks, ensure the spacing between supports does not exceed 3 feet.
- Do not store pipes on metal surfaces exposed to sunlight or reflective heat.

Correct Transportation Procedure

Whenever possible, use a truck for deliveries and lay the pipes flat on the truck bed. Strap the pipes down to prevent them from rolling and to ensure they are properly supported. Alternate the sockets and pipe ends when loading the pipes.

Safe Handling of Solvents

When using solvent adhesives, keep the following basic safety measures in mind:

- After each application of solvent on pipes or fittings, ensure the lid of the adhesive container is securely closed to avoid evaporation and solvent escape
- Avoid prolonged inhalation of solvent vapors. Ensure adequate ventilation when joining pipes and fittings in enclosed spaces.
- Keep solvent adhesives away from sources of ignition, heat, sparks, and open flames.
- Keep adhesive containers tightly closed except when in use.
- 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 consult a doctor immediately.

Do's and Don'ts

Do's

- Sintex Co-Molded Technology (rubber ring) consists of two parts: a black rubber ring that provides a tight seal and a yellow polymer that acts as a retainer, giving the ring shape and strength. The ring will never fall off the groove when the pipe/fitting is inserted, and it is difficult for the plumber to remove the ring by hand. This ring is manufactured in our own factory and is not imported. Replacement rubber rings can be procured as spares.
- Always encourage the use of lubricant when inserting the pipe/fitting. This makes the fitment much easier, allowing the pipe/fitting to slide inside with minimal effort. While joints can be made without lubricant, it makes the process significantly harder.
- The purpose of the lubricant is for easy installation; it is NOT glue (note: do not confuse it with solvent).
- A joint made with or without lubricant has the SAME pressure-withstanding capacity, life, and joint strength.
- The greasy property of the lubricant lasts only for a few hours in the joint, after which it will dry up.
- Sintex push-fit systems are tested to withstand a capacity of 5 kg/cm².

Don'ts

- DON'T try to remove the rubber ring from the pipe or fitting (in Pushfit systems).
- DON'T install a pipe into a pushfit fitting without the rubber ring, thinking that applying solvent will make it leak-proof. THIS IS WRONG AND THE SYSTEM MAY FAIL.
- DON'T mix Sintex pipes/fittings with products from other manufacturers, as fitment may not match properly and could lead to leakages.
- DON'T mix Pushfit fittings with Solfit pipes.
- DON'T use solvent adhesive for Pushfit joints.
- DON'T use lubricant for Solfit joints.
- DON'T cut pipes and make sockets by heating and bending the pipe mouth manually at the site. Only use company-made socketed pipes for installation. Sintex offers a complete range from 2ft to 20ft.



Maintenance Procedures

1. Regular Inspection

- **Visual Check:**

Inspect pipes and fittings for visible cracks, deformations, or leaks.

- **Check Joints:**

Ensure that joints are intact and there is no misalignment or disconnection.

- **Inspect Rubber Rings (Ringfit):**

Examine the rubber rings for wear, deformation, or dislodgment.

- **Look for Blockages:**

Check for clogs or debris accumulation, especially in areas prone to sediment or waste build-up.

2. Cleaning the System

- **Flush the Pipes:**

Periodically flush the system with clean water to remove debris and maintain proper flow.

- **Remove Deposits:**

Use a non-corrosive cleaning solution to dissolve grease or mineral deposits, especially in waste systems.

- **Avoid Abrasive Tools:**

Do not use abrasive brushes or harsh chemicals that could damage the pipe surface or fittings.

3. Preventive Measures

- **Protect Against UV Exposure:**

For outdoor installations, apply UV-resistant paint or coverings to prevent degradation.

- **Support Pipes Adequately:**

Regularly check pipe supports and clamps to ensure they are secure and free of corrosion.

- **Maintain Proper Slopes:**

Ensure the pipes have the correct gradient to facilitate proper drainage and avoid stagnation.

4. Joint Maintenance

Selfit Pipes:

- **Check Solvent Bonding:**

Inspect solvent-bonded joints for signs of weakness or separation.

- **Reapply Adhesive if Needed:**

If any joint is loose, clean the surfaces and reapply solvent cement.

Selfit Pipes:

- **Inspect Rubber Rings:**

Ensure the rubber ring is seated correctly in the groove and has not deteriorated.

- **Replace Damaged Rings:**

Replace worn-out or damaged rubber rings with new ones to maintain a leakproof seal.

5. Leak Detection and Repair

- **Identify Leaks:**

Use a pressure test or visually inspect for leaks in the system.

- **Repair Cracks:**

For small cracks, use epoxy resin or plastic welding techniques.

- **Replace Damaged Sections:**

Replace severely damaged pipes or fittings to avoid compromising the system.

6. Blockage Removal

- **Mechanical Cleaning:**

Use drain rods or flexible cleaning tools to remove blockages without damaging the pipes.

- **Chemical Cleaning:**

Use approved, non-corrosive drain cleaners for tough blockages. Avoid acids or harsh chemicals that may damage the pipe material.

- **Hydrojetting:**

Employ high-pressure water jetting for severe blockages, ensuring the pressure does not exceed the pipe's rated capacity.

7. Seasonal Maintenance

- **Rainy Season:**

Clear downpipes and gutters connected to the SWR system to prevent overflow and blockages.

- **Winter:**

Insulate exposed pipes to prevent freezing and cracking in cold climates.

- **Summer:**

Check for expansion or warping due to heat and ensure UV protection.

8. Testing the System

- **Routine Pressure Testing:**

Conduct pressure tests periodically to ensure the system is leakproof and joints are secure..

- **Flow Testing:**

Check the flow rate through the pipes to identify potential blockages or system inefficiencies.

9.Replacement Guidelines

- **Replace Aging Components:**

Replace pipes and fittings that show signs of aging or repeated repairs.

- **Use Compatible Parts:**

Ensure replacements are of the same type and manufacturer to maintain compatibility.

10. Documentation and Record-Keeping

- **Maintenance Log:**

Maintain a log of inspections, cleaning, and repairs for reference.

- **Report Issues:**

Document any recurring issues and consult the manufacturer for further guidance if needed.

Important Notes

- Follow the manufacturer's guidelines for the maintenance of specific products.
- Ensure only trained personnel perform maintenance tasks, especially for high- pressure or complex systems.
- Always use original spare parts to ensure quality and compatibility.

Frequently Asked Questions (FAQs)

Q1: What is the difference between Type A and Type B SWR pipes?

- Type A SWR pipes are designed for rainwater and non-pressure drainage, whereas Type B SWR pipes are intended for soil and waste discharge systems, offering higher strength and durability.

Q2: How do Sintex SWR pipes prevent leaks at joints?

- Sintex SWR pipes use high-quality rubber ring seals that accommodate thermal expansion and contraction, ensuring a 100% leak-proof joint.

Q3: Are there specialized SWR pipes for noise-sensitive areas?

- Yes, Sintex offers noise-reducing SWR pipes designed to minimize drainage noise, making them ideal for residential and commercial applications where low noise levels are preferred.

Q4: Can perforated SWR pipes be used for underground drainage?

- No, perforated SWR pipes are designed for surface drainage applications such as balconies, terraces, and controlled water discharge systems.

Q5: What maintenance practices are recommended for SWR systems?

- Regular inspections for leaks, ensuring proper slope for drainage, and periodic cleaning to prevent blockages. Using manufacturer-recommended lubricants during installation can also enhance performance and longevity.

Sintex AgriX

XXXX XXXXXXXX

UPVC PLUS

Engineered for efficiency, our next-gen AGRI pipes ensure optimal water flow from borewells, canals, and irrigation systems. Perfect for both water transport and drainage, these durable pipes are made from a high-performance blend of plastic and vinyl, offering unmatched reliability for agriculture and beyond.



ANTI
MICROBIAL



Sintex AGRIX Pipes for SWR Applications

Proper Handling Upon receipt, inspect the pipes carefully for any transport damage caused by load shifting or improper handling. Visually examine the ends of the pipes for cracks or any other damage. Pipes should be handled with care—avoid throwing or dropping them onto the floor. Do not drag or push pipes from a truck bed. Ensure pipes do not come in contact with sharp objects.

PVC AGRI Pipes and Their Applications

PVC pipes are commonly referred to as AGRI pipes due to their predominant use in agricultural applications. These pipes are essential for transporting water from sources such as borewells, canals, and irrigation systems. They are also widely used in drainage applications, ensuring efficient water management in farming and other sectors.

Composition:

Made from a combination of plastic and vinyl.

Range

Agri		
Nominal Size (Outer Diameter - OD) mm	Length (M)	Class
40 - 110	6	Class 1, Class 2 and Class 3

Features & Benefits

Lead-Free:

Free from harmful lead stabilizers, making them safe for water supply and environmentally friendly.

Lead-Free:

Unlike metal pipes, uPVC pipes are not prone to corrosion from water, chemicals, or the soil around them, ensuring a longer lifespan without the need for frequent replacements.

Durability:

uPVC pipes are highly resistant to physical damage, including cracking and breakage. This makes them ideal for use in areas with extreme weather conditions or rough handling.

Corrosion Resistance:

Unlike metal pipes, uPVC pipes are not prone to corrosion from water, chemicals, or the soil around them, ensuring a longer lifespan without the need for frequent replacements.



Low Maintenance:

Due to their resistance to wear, rust, and rot, uPVC pipes require very little maintenance compared to traditional piping materials like iron or steel.

Chemical Resistance:

uPVC is highly resistant to a wide range of chemicals, including acids, alkalis, and salts. This makes it suitable for transporting a variety of fluids, including potable water and wastewater.

Lightweight:

Compared to other materials like metal, uPVC is much lighter, which simplifies transportation, handling, and installation of the pipes.

General Properties of PVC:

Long lifespan and low maintenance. Resistant to environmental factors such as UV light and ozone.

Non-toxic:

uPVC pipes are non-toxic, making them safe for use in drinking water systems and other applications involving human contact.

Earthquake Resilience:

Capable of withstanding extreme movement and bending, making it suitable for earthquake-prone areas.

Withstands vigorous shaking of the earth without damage.

Smooth Surface:

The pipe's smooth surface helps prevent bacterial contamination (e.g., E. coli). Used by many water companies to maintain water quality and prevent contamination.

a) Indian Standards (IS) to which AgriX is produced

- **IS 4985: 2000** – Specifies the requirements for **unplasticized PVC (UPVC)** pipes for potable water supply, agriculture, and irrigation.
- **IS 12818: 2010** – Specifies the requirements for **PVC casing and screen** pipes used in borewells.

b) International Standards

- **ISO 4422** – International standard for PVC pressure pipes and fittings for water supply.
- **ASTM D1785** – Specifies dimensions and classification for **PVC pressure** pipes.

Properties of Sintex AgriX Pipe



PROPERTY	PVC	ASTM NO.
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BASIC PHYSICAL PROPERTIES OF PVC MATERIAL

Cell classification	12454	ASTMD1784
Color	Grey	-
Water Absorption % increase 24 hrs. @ 25°C	0.05	ASTM D570
Density	1.30 - 1.46 gm/cc	D 792

MECHANICAL PROPERTIES

Tensile Strength (23 °C)	48 N/mm ²	D 638
Flexural Strength (23 °C)	104 N/mm ²	D 790
Compressive Strength (23 °C)	62 N/mm ²	D 695
Izod Impact (Notched at 23 °C)	60 J/m	D 256
Hardness (Durometer D)	80 ± 3	
Hardness (Rockwell R)	110 -120	ASTM D785
Hydrostatic Design Stress	140.6 Kg/cm ²	D 1598
Elongation at Break	50 - 80%	
Modulus of Elasticity in Tension (23 °C)	2500 N/mm ²	D 638

THERMAL PROPERTIES

Coefficient of Linear Expansion	2.9 x 10 ⁻⁵ (in/in/°F)	D 696
Vicat Softening Temp.	80 °C	
Heat deflection temperature	170°F @ 264 psi	D 648
Flame Resistance	Self-extinguishing	
Limiting Oxygen Index	43%	D 2863
Burning rate (in/min)	Self-Extinguishing	ASTM D635

ELECTRICAL PROPERTIES

Electrical Resistance	≥ 100 Ω	ASTM D876
Dielectric Strength	1100	ASTM D147
Dielectric Constant (60Hz, 23 °C/-1°C)	3.7	ASTM D150

The above data is based upon information provided by the raw material manufacturers. It should be used only as a recommendation and not as a guarantee of performance.

Marking on the Pipes

Classification	Pressure Rating (kg/cm ²)	Screening Color on the Pipe
Class 1	2.5	Red
Class 2	4	Blue
Class 3	6	Green
Class 4	8	Brown
Class 5	10	Yellow
Class 6	12.5	Black
Plumbing Pipes	15	Purple

PVC pipes are given by color coding's based on the pressure classes & fittings are embossed with ISI number and pressure rating

Dimensions of SINTEX AgriX Pipes

DIMENSIONS OF UPVC PRESSURE PIPES CONFORMING TO IS:4985			WALL THICKNESS													
Nominal Outside Diameter		Tolerance on Mean Outside Diameter	Class 1 (PN)		Class 2 (PN)		Class 3 (PN)		Class 4 (PN)		Class 5 (PN)		Class 6 (PN)		Plumbing	
			2.5 kgf/cm2		4 kgf/cm2		6 kgf/cm2		8 kgf/cm2		10 kgf/cm2		12.5 kgf/cm2			
cm	mm		Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max
2	20	0.3	-	-	-	-	-	-	-	-	1.1	1.5	1.4	1.8	2.8	3.3
2.5	25	0.3	-	-	-	-	-	-	1.2	1.6	1.4	1.8	1.7	2.1	2.9	3.4
3.2	32	0.3	-	-	-	-	-	-	1.5	1.9	1.8	2.2	2.2	2.7	3.4	3.9
4	40	0.3	-	-	-	-	1.4	1.8	1.8	2.2	2.2	2.7	2.8	3.3	3.6	4.2
5	50	0.3	-	-	-	-	1.7	2.1	2.3	2.8	2.8	3.3	3.4	4	3.7	4.3
6.3	63	0.3	-	-	1.5	1.9	2.2	2.7	2.8	3.3	3.5	4.1	4.3	5	-	-
7.5	75	0.3	-	-	1.8	2.2	2.6	3.1	3.4	4	4.2	4.9	5.1	5.9	-	-
9	90	0.3	1.3	1.7	2.1	2.6	3.1	3.7	4	4.6	5	5.7	6.1	7.1	-	-
11	110	0.4	1.6	2	2.5	3	3.7	4.3	4.9	5.6	6.1	7.1	7.5	8.7	-	-

DIMENSIONS OF PVC PRESSURE Fittings CONFORMING TO IS:7834

Nominal Size		Minimum Socket Length	Mean Socket Internal Diameter at mid-Point of Socket Length	
cm	mm	Mm	Minimum (mm)	Maximum (mm)
1.6	16	14	16.1	16.3
2	20	16	20.1	20.3
2.5	25	19	25.1	25.3
3.2	32	22	32.1	32.3
4	40	26	40.1	40.3
5	50	31	50.1	50.3
6.3	63	38	63.1	63.3
7.5	75	44	75.1	75.3
9	90	51	90.1	90.3
11	110	61	110.1	110.4
12.5	125	69	125.1	125.4
14	140	76	140.1	140.5
16	160	86	160.2	160.5
18	180	96	180.2	180.5
20	200	106	200.3	200.6
22.5	225	118.5	225.3	225.7
25	250	131	250.4	250.8
28	280	146	280.4	280.9
31.5	315	163.5	315.4	316

Quality Assurance Procedures (QAP) at SINTEX

At SINTEX, the manufacturing of pipes and fittings involves a rigorous quality control process to ensure that every product meets the highest standards of performance and reliability before being distributed to customers. This attention to detail ensures that users receive a defect-free system, built to last and function optimally. The quality control checks conducted at SINTEX are aligned with the specifications set by the Bureau of Indian Standards (BIS), which is the national standardization body of India.

These guidelines are designed to ensure that products meet safety, durability, and performance requirements. Here's a closer look at the key aspects of the quality control checks and specifications:

1. Material Testing:

Raw Material Inspection: SINTEX ensures that the raw materials used in manufacturing, such as the uPVC resin and additives, are of the highest quality. These materials are checked for consistency in composition, strength, and resistance to environmental factors.

Polymer Testing: To guarantee optimal strength and durability, the polymers used in the production of pipes and fittings undergo extensive testing for chemical composition, tensile strength, and thermal stability.

2. Dimensional Accuracy:

Pipe Size Verification: Each pipe is carefully measured to ensure it adheres to the correct dimensions specified by the BIS guidelines, ensuring uniformity in diameter, wall thickness, and length. Proper sizing ensures that the pipes fit together seamlessly during installation.

Fitting Specifications: Fittings, such as elbows, tees, and couplings, undergo dimensional checks to ensure they match the pipes they are designed to connect with, preventing installation issues.

3. Mechanical Testing:

Impact Resistance: The pipes are tested for resistance to impact or breakage under pressure. This ensures that they can withstand accidental knocks or external stresses during handling and installation.

Pressure Resistance: SINTEX conducts pressure testing to ensure that the pipes can handle the intended water pressure for the specific application, whether for plumbing, drainage, or irrigation. **Bending Strength:** Pipes are tested for bending resistance, which ensures that they will not deform or crack under stress during installation or use.

4. Temperature and Chemical Resistance:

Heat Resistance: PVC pipes need to maintain structural integrity under varying temperature conditions. SINTEX ensures that their pipes meet the BIS standards for heat resistance to ensure reliability in both hot and cold-water applications.

Chemical Resistance: The pipes are tested for their resistance to various chemicals commonly found in waste-water, sewage, and industrial environments, ensuring they do not degrade or corrode over time.

5. Hydraulic Testing:

Flow Testing: To assess the smoothness of the internal surface, SINTEX performs hydraulic testing to ensure there is minimal friction during the flow of water or sewage through the pipes. This also ensures that the pipes can withstand high-pressure water flow without leakage.

6. Long-Term Durability:

Aging and Weather Resistance: The pipes are subjected to accelerated aging tests, simulating prolonged exposure to UV light, humidity, and temperature fluctuations. This ensures the pipes will remain durable and functional over many years, even in harsh environmental conditions.

7. Visual Inspection:

Surface Quality: Pipes and fittings are visually inspected for any surface defects, such as cracks, bubbles, or irregularities that could affect performance or aesthetics.

Color and Finish: The pipes and fittings are checked for consistent color and finish, ensuring a professional appearance and uniform quality.

8. Leakage Testing:

Seal Integrity: Fittings and joints undergo leakage tests to ensure a tight, leak-proof seal when assembled. This is critical for plumbing, drainage, and sewage systems, where leaks can cause significant problems.

9. Standards Compliance:

BIS Certification: SINTEX adheres to the Indian Standards set by BIS for PVC pipes and fittings. These standards ensure that all products conform to safety and performance expectations in various plumbing and infrastructure applications. **ISO Certifications:** In addition to BIS specifications, SINTEX also follows ISO standards for manufacturing and quality assurance, ensuring global quality standards are met.



Conclusion

These quality assessments guarantee that PVC AGRI pipes adhere to global standards for durability, impact resistance, thermal stability, and structural strength. Through rigorous testing, PVC AGRI pipes provide dependable performance, extended service life, and meet the requirements of IS 4985 and other international standards.

CONTACT INFORMATION

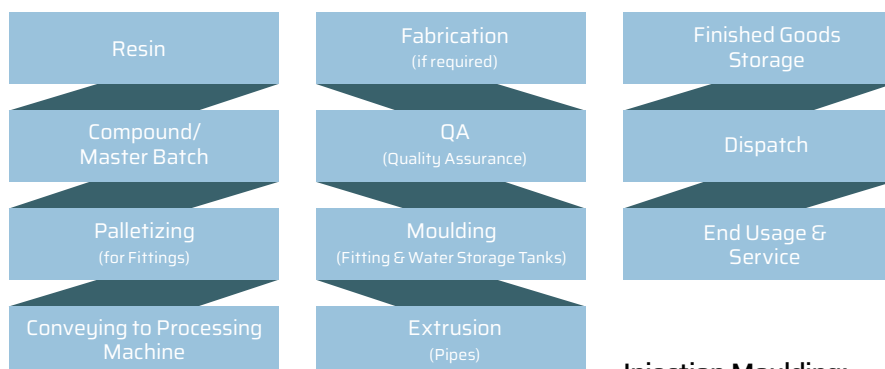
MAIL TO: SINTEX_SUPPORT@WELSPUN.COM

TOLL FREE NO. 18001212764

Glossary

Manufacturing Technologies Capabilities at Sintex

Plastic processing involves transforming resin into finished products through a series of precise steps. Below is an overview of the process followed at Sintex-Welspun:



Resin Procurement and Processing

Sintex sources resins from renowned global brands and enhances them with high-quality additives to create compounds of exceptional consistency. These compounds are efficiently transported via advanced conveying systems to the processing machinery. The use of state-of-the-art extruders and precision moulding machines ensures the conversion of raw resin into high-quality finished products for end-use applications.

Advanced Manufacturing Facilities

Sintex operates cutting-edge facilities equipped to manufacture pipes, fittings, and water tanks to international standards. The company's plants can process a wide range of materials, including PVC, CPVC, O-PVC, PP, HDPE, and LLDPE. The following technologies and equipment are consistently available at Sintex facilities:

Extrusion:

Sintex employs high-precision extrusion processes to produce monolayer pipes with exceptional roundness. The company uses extruders from leading manufacturers, including Thyssen Extrusion Technik, Rollepaal, Krauss Maffei, and Kabra. With a wide array of die heads, Sintex can produce pipes ranging from 15 mm to 315 mm in diameter.

Co-extrusion:

Sintex employs high-precision extrusion processes to produce monolayer pipes with exceptional roundness. The company uses extruders from leading manufacturers, including Thyssen Extrusion Technik, Rollepaal, Krauss Maffei, and Kabra. With a wide array of die heads, Sintex can produce pipes ranging from 15 mm to 315 mm in diameter. These pipes are produced on Kabra machines to ensure high quality and performance.

Injection Moulding:

Injection moulding is employed to produce consistent, high-quality fittings. Sintex maintains an extensive inventory of nearly 600 moulds from top-tier mould makers. The company utilizes Milacron injection moulding machines with capacities ranging from 150 MT to 660 MT to manufacture fittings ranging from ½ inch to 10 inches in size.

Over-moulding:

A subset of injection moulding, over-moulding enables the integration of metal parts or the combination of two distinct materials within a single fitting. Brass insert fittings in PVC and CPVC, ranging from ½ inch to 3 inches, are produced using this technique at Sintex.

Fabrication:

For custom shapes and large diameter fittings, Sintex employs in-house fabrication, ensuring tight tolerances and precise manufacturing. Fittings ranging from 110 mm to 315 mm in PVC are fabricated with high accuracy at Sintex's facilities.

Roto-moulding:

Sintex uses roto-moulding to produce high-integrity water tanks and round-shaped products. The company's facilities can manufacture multi-layer tanks and chambers with capacities ranging from 500 liters to 25,000 liters. Roto-moulding equipment from NARoto, Rheinhardt, and in-house development enable the production of tanks in monolayer to four-layer configurations.

Blow Moulding:

Blow moulding is employed at Sintex to produce loft tanks and non-round tanks at high speeds. Sintex uses Yankang machinery to produce blow-moulded water tanks ranging from 200 liters to 2,000 liters, with up to three layers.



Special Moulding Compound Tank Panels:

Sintex has mastered a unique technique for producing modular water tanks ranging from 10,000 liters to over 200,000 liters. This process allows for large-scale tank production through modular construction using special moulding compounds.

Fibre Reinforced Composite Panels:

Sintex employs a specialized process to manufacture large-diameter products reinforced with glass fiber. This process enhances pressure and corrosion resistance. Sintex facilities can produce up to 6-meter diameter process tanks using this advanced technique.

Pultrusion:

Pultrusion is used to co-extrude fibers and resin to create linear, special components. Sintex's facilities can produce products up to 6 meters in length using this method, offering robust performance in a variety of applications.

R & D Capabilities

Sintex operates a dedicated R&D center focused on new product development (NPD), addressing customer inquiries, and providing efficient technical assistance. The R&D team continuously enhances existing products while introducing new innovations.

Our R&D center houses specialists with extensive expertise in chemistry and polymer science, collaborating closely with application and design engineers, as well as the production team. This multidisciplinary approach drives product development and optimization.

In addition, a highly skilled design team works on both new product designs and the enhancement of existing products, ensuring resolution of any issues while boosting product strength and performance.

The R&D team also plays a vital role in supporting the Quality Assurance (QA) department with quality improvements and works in tandem with the Marketing team to resolve any existing product concerns. Furthermore, the team collaborates with the Production department on ongoing product refinement initiatives.

We conduct rigorous trials to address process challenges and continuously enhance product quality.

All products—pipes, fittings, and tanks—manufactured at Sintex facilities are assured for material integrity and design, backed by an unbiased approach. Regular updates and formulations of new additives, such as anti-microbial and anti-rodent agents, ensure the ongoing enhancement of our materials.

Testing Lab Facilities at Sintex

S #	Equipment	Range	Application	Pipes/Fittings/System	Product Category
1	Long Tounge Micrometer(Round)	0-25 mm	Wall Thickness Measurement	System	UPVC/CPVC Fittings
2	Ultrasonic Thickness Gauge	0.75-600 mm	Wall Thickness Measurement	System	Water Storage Tanks
3	Degree Protractor (D-Head)(Angle	0-180°C	Angle Measurement	System	SWR Pipes
4	Hot Air Circulating Oven m/c(2)	0-200°C	Reversion Test	System	AGRI/SWR/UPVC/CPVC Pipes & Fittings
5	Dichloromethane Test Apparatus	0-600°C	Material geletion test	Pipes	SWR Pipes
6	Axial Shrinkage Tester	0-400°C	Reversion Test	Pipes	SWR Pipes
7	Glass Thermometer	- 10 to 150°C	Temperature Measurement	System	AGRI/SWR/UPVC/CPVC Pipes & Fittings
8	Shore A Hardness Tester	0-100 A	Rubber Property	System	SWR Pipes & Fittings
9	Density Digital Weighing Balance	0 to 200 g	Density	System	AGRI/SWR/UPVC/CPVC Pipes & Fittings
10	Sp. Gr. Hydrometer	0.800 to 1.000 g/ml		System	AGRI/SWR/UPVC/CPVC Pipes & Fittings
11	Bulk Density Tester	As Per Result	Material Properties	System	AGRI/SWR/UPVC/CPVC Pipes & Fittings
12	Hydro Static Pressure Testing M/c.(2)	0-140 kg/cm ²	Pressure testing of pipes & Fittings	System	AGRI/SWR/UPVC/CPVC Pipes & Fittings
13	Hydrostatic Pressure Bursting Tester m/c		Burst Strength for upvc pipes & fittings	System	AGRI/SWR/UPVC/CPVC Pipes & Fittings
14	Hydrostatic Pressure Tester	0-200 kg/cm ²	Pressure testing of pipes & Fittings	System	AGRI/SWR/UPVC/CPVC Pipes & Fittings
15	Analouge Gauge Dunky Tester Pressure Gauge	0-10.6 kg/cm ²	Leakge Test	System	AGRI/SWR/UPVC/CPVC Pipes & Fittings
16	Malfunctioning test bath		CPVC Pipes Test	Pipes	CPVC Pipes
17	Hot Water Bath Tester Pressure Controller(30*20*18) for Malfunctioning test	0-250°C	Pressure testing of pipes & Fittings	Pipes	AGRI/SWR/UPVC/CPVC Pipes & Fittings
18	Cold Water Bath		Pressure testing of pipes & Fittings	System	AGRI/SWR/UPVC/CPVC Pipes & Fittings
19	End Plugs & Cap as per IS 4985	20mm to 200 mm	Pressure testing of pipes & Fittings	Pipes	AGRI/SWR/ Pipes & Fittings
20	Locking External Clamps for SWR as per IS 13592	63 mm to 110mm	Pressure testing of pipes & Fittings	Pipes	SWR Pipes
21	Falling Weight Testing Machine		Drop Impact Test	Pipes	AGRI/SWR/UPVC/CPVC Pipes

22	0 Deg. C. Chamber (Deep Freezing Chamber)	(-10)°C to 15°C	Drop Impact Test	System	AGRI/SWR/UPVC/ CPVC Pipes & Fittings
23	load Weight(25kg)*4	25 kg	Deflection of WST	WST	Water Storage Tanks
24	Tensile Testing Machine	0.1000 kgf	Tensile Strength / CompressionTest	Pipes	SWR/ CPVC Pipes
25	Humidity Chamber m/c	0-100°C/ 20 to 95 %	Curing	Pipes	SWR/ CPVC Pipes
26	Muffle Furnace Sulphated Ash Content Tester m/c	0-950°C	Ash Content Test	System	Agri /SWR Pipes & Fittings
27	Vicat Softening Point Test		Material Properties	System	Agri/SWR/CPVC Pipes & Fittings
28	Opacity Tester machine	0 to 100 %	Opacity Test	System	Agri /CPVC Pipes & Fittings
29	Melt Flow Index Tester m/c	5 kg & 2.16 Kg	Material Flow Properties	WST	Water Storage Tanks
30	Carbon Black Content m/c		Carbon Black content Test	WST	Water Storage Tanks
31	Carbon Black Dispersion	0-200°C	Carbon Black Dispersion Test	WST	Water Storage Tanks
32	CBD Lense of Microscope	100 X, 200 X	Carbon Black Dispersion Test	WST	Water Storage Tanks



Chemical Resistance of Sintex SWRX & AgriX PVC

Chemical Resistance Overview

This section outlines the chemical compatibility of PVC thermoplastic piping materials, primarily for pressure systems. PVC is categorized into two main applications: pressure systems and corrosive waste drainage systems. PVC is highly resistant to corrosion, unlike metal systems, and are non-conductive, preventing galvanic and electro-chemical corrosion.

Types of Chemical Attack

Chemicals impact plastics in two main ways:

Solvation/Permeation: Chemicals pass through the polymer without changing its structure. Physical properties may be affected, but the material can often be restored.

Direct Chemical Attack:

Exposure causes permanent chemical changes in the polymer, leading to irreversible damage.

Key Considerations

- PVC is generally resistant to most mineral acids, bases, salts, and paraffinic hydrocarbons.
- Resistance to specific chemicals decreases with higher concentration, temperature, and applied stress.
- Combinations of chemicals may have a stronger effect than individual chemicals.

Caution Areas

- **Not Recommended:** Chlorinated and aromatic hydrocarbons, esters, ketones, and certain oils, surfactants, and greases, which may cause environmental stress cracking.
- **Compatibility:** Ensure all system components, including elastomers and lubricants, are compatible with the piping material.
- **Gaseous Substances:** Certain chemicals in gaseous form should not be used in pressure systems.

Special Considerations

- PVC may be suitable for short-term exposure to liquid hydrocarbons like gasoline and jet fuels, but not for long-term use.
- These materials have been used in low-pressure systems for contaminated water recovery, especially for low levels of incompatible substances.

Disclaimer

The chemical resistance data provided is based on testing and field experience. However, conditions may vary, and the user is responsible for compliance with all relevant laws and regulations.

R = Recommended NR = Not Recommended

C = Caution, actual testing suggested; suspect @ certain stress levels ? = Incomplete Data; actual testing required



CHEMICAL REAGENT	PVC Type 1 1120 (12454)	
	73°F	140°
Acetaldehyde	NR	NR
Acetamide	NR	NR
Acetic Acid, 10%	R	R
Acetic Acid, 20%	R	R
Acetic Acid, Glacial	R	NR
Acetic Acid, pure	NR	NR
Acetic Anhydride	NR	NR
Acetone, < 5%	?	?
Acetone, > 5%	NR	NR
Acetyl Nitrile	NR	NR
Acetylene	R	R
Acrylic Acid	NR	NR
Adipic Acid; sat. in water	R	R
Allyl Alcohol, 96%	R	NR
Allyl Chloride	NR	NR
Alum, all varieties	R	R
Aluminum Acetate	R	R
Aluminum Alum	R	R
Aluminum Chloride	R	R
Aluminum Fluoride	R	R
Aluminum HydroxideR		R
Aluminum Oxylchloride	R	R
Aluminum Sulfate	R	R
Amines	NR	NR
Ammonia (gas;dry)	R	R
Ammonia (liquid)	NR	NR
Ammonium Acetate	R	R
Ammonium Alum	R	R
Ammonium Bisulfate	R	R
Ammonium Carbonate	R	R
Ammonium Chloride	R	R
Ammonium Dichromate	R	?
Ammonium Fluoride, < 25%	R	NR
Ammonium Fluoride, > 25%	?	NR
Ammonium Hydroxide	R	R
Ammonium Metaphosphate	R	R
Ammonium Nitrate	R	R

CHEMICAL REAGENT	PVC Type 1 1120 (12454)	
	73°F	140°
Ammonium Persulfate	R	R
Ammonium Phosphate	R	R
Ammonium Sulfate	R	R
Ammonium Sulfide	R	R
Ammonium Tartrate	R	R
Ammonium Thiocyanate	R	R
Amyl Acetate	NR	NR
Amyl Alcohol	R	NR
Amyl Chloride	NR	NR
Aniline	NR	NR

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CHEMICAL REAGENT	PVC Type 1 1120 (12454)	
	73°F	140°
Aniline Chlorohydrate	NR	NR
Aniline Hydrochloride	NR	NR
Anthraquinone	?	?
Anthraquinone Sulfonic Acid	R	R
Antimony Trichloride	R	R
Aqua Regia	NR	NR
Aromatic Hydrocarbons	NR	NR
Arsenic Acid 80%	R	R
Arsenic Trioxide (powder)	R	?
Arylsulfonic Acid	R	R
Barium Carbonate	R	R
Barium Chloride	R	R
Barium Hydroxide 10%	R	R
Barium Nitrate	R	?
Barium Sulfate	R	R
Barium Sulfide	R	R
Beer	R	R
Beet Sugar Liquors	R	R
Benzaldehyde; 10%	R	NR
Benzaldehyde; > 10%	NR	NR
Benzalkonium Chloride	R	?
Benzene	NR	NR
Benzoic Acid	R	R
Benzyl Alcohol	NR	NR
Benzyl Chloride	NR	NR
Bismuth Carbonate	R	R
Black Liquor	R	R
Bleach (15% CL)	R	R
Borax	R	R
Boric Acid	R	R
Brine (acid)	R	?
Bromic Acid	R	R
Bromine Liquid	NR	NR
Bromine Vapor 25%	R	R
Bromine Water	R	R
Bromobenzene	NR	NR
Bromotoluene	NR	NR

CHEMICAL REAGENT	PVC Type 1 1120 (12454)	
	73°F	140°
Butadiene	R	R
Butane	R	R
Butanol: primary	R	R
Butanol: secondary	R	NR
Butyl Acetate	R	NR
Butyl Carbitol	?	?
Butyl Mercaptan	NR	NR
Butyl Phenol	R	NR
Butyl Stearate	R	?
Butyl Cellosolve	R	?
Butyne Diol	R	?

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CHEMICAL REAGENT	PVC Type 1 1120 (12454)	
	73°F	140°
Chlorine Gas (dry)	NR	NR
Chlorine Gas (wet)	NR	NR
Chlorine Water (sat'd 0.3%)	R	R
Chlorine(trace in air)	R	?
Chloroacetic Acid	R	R
Chloroacety Chloride	R	?
Chlorobenzene	NR	NR
Chloroform	NR	NR
Chloropicrin	NR	NR
Chlorosulfonic Acid	R	NR
Chlorox Bleach Solution	R	?
Chrome Alum	R	R
Chromic Acid 10%	R	R
Chromic Acid 40%	?	?
Chromic Acid 50%	NR	NR
Chromic Acid/Sulfuric Acid/ water-50%/15%/35%	R	NR
Chromic/Nitric Acid (15%/35%)	R	R
ChromiumNitrate	R	?
Citric Acid	R	R
Citrus Oils	?	?
Coconut Oil	R	R
Copper Acetate	R	R
Copper Carbonate	R	R
Copper Chloride	R	R
Copper Cyanide	R	R
Copper Fluoride	R	R
Copper Nitrate	R	R
Copper Sulfate	R	R
Corn Oil	R	?
Corn Syrup	R	R
Cottonseed Oil	R	R
Creosote	NR	NR
Cresylic Acid,50%	R	R
Crotonaldehyde	NR	NR
Crude Oil	R	R
Cumene	?	?

CHEMICAL REAGENT	PVC Type 1 1120 (12454)	
	73°F	140°
Cupric Fluoride	R	R
Cupric Sulfate	R	R
Cuprous Chloride	R	R
Cyclanones	R	R
Cyclohexane	NR	NR
Cyclohexanol	NR	NR
Cyclohexanone	NR	NR
D.D.T. (Xylene Base)	NR	NR
Desocyphephedrine Hydrochloride	R	?
Detergents	R	R
Dextrin	R	R

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CHEMICAL REAGENT	PVC Type 1 1120 (12454)	
	73°F	140°
Butyric Acid < 1%	R	NR
Butyric Acid > 1%	R	NR
Cadmium Acetate	R	R
Cadmium Chloride	R	R
Cadmium Cyanide	R	R
Cadmium Sulfate	?	?
Caffeine Citrate	R	?
Calcium Acetate	R	R
Calcium Bisulfide	R	R
Calcium Bisulfite	R	R
Calcium Bisulfite Bleach Liquor	R	?
Calcium Carbonate	R	R
Calcium Chlorate	R	R
Calcium Chloride	R	R
Calcium Hydroxide	R	R
Calcium Hypochlorite	R	R
Calcium Nitrate	R	R
Calcium Oxide	R	R
Calcium Sulfate	R	R
Camphor (crystals)	R	?
Cane Sugar Liquors	R	R
Caprolactam	?	?
Caprolactone	?	?
Carbitol	R	?
Carbon Dioxide	R	R
Carbon Dioxide (aqueous solution)	R	R
Carbon Disulfide	NR	NR
Carbon Monoxide	R	R
Carbon Tetrachloride	R	NR
Carbonic Acid	R	R
Carene 500	R	?
Castor oil	R	R
Caustic Potash	R	R
Caustic Soda	R	R
Cellosolve	R	NR
Cellosolve Acetate	R	?
Chloral Hydrate	R	R

CHEMICAL REAGENT	PVC Type 1 1120 (12454)	
	73°F	140°
Chloramine	R	?
Chloric Acid up to 20%	R	R
Chloride Water	R	R
Chlorinated Solvents	NR	NR
Chlorinated Water (Hypochlorite)	R	R
Chlorine (dry liquid)	NR	NR
Chlorine (liquid under pressure)	NR	NR
Chlorine Dioxide aqueous (sat'd 0.1%)	?	?

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CHEMICAL REAGENT	PVC Type 1 1120 (12454)	
	73°F	140°
Dextrose	R	R
Diacetone Alcohol	R	?
Diazo Salts	R	R
Dibutoxy Ethyl Phthalate	NR	NR
Dibutyl Phthalate	NR	NR
Dibutyl Sebacate	R	NR
Dichlorobenzene	NR	NR
Dichloroethylene	NR	NR
Diesel Fuels	R	R
Diethyl Ether	R	?
Diethylamine	NR	NR
Diglycolic Acid	R	R
Dill Oil	?	?
Dimethyl Hydrazine	NR	NR
Dimethylamine	R	R
Dimethylformamide	NR	NR
Dioctylphthalate	NR	NR
Dioxane (1, 4)	NR	NR
Disodium Phosphate	R	R
Distilled Water	R	R
EDTA Tetrasodium	?	?
Ethyl Ester (ethyl acrylate)	NR	NR
Epsom Salt	R	?
Esters	NR	NR
Ethanol > 5%	R	R
Ethanol up to 5%	R	R
Ethers	NR	NR
Ethyl Acetate	NR	NR
Ethyl Acrylate	NR	NR
Ethyl Alcohol	R	R
Ethyl Chloride	NR	NR
Ethyl Chloroacetate	NR	NR
Ethyl Ether	NR	NR
Ethylene Bromide	NR	NR
Ethylene Chlorohydrin	NR	NR
Ethylene Diamine	NR	NR
Ethylene Dichloride	NR	NR

CHEMICAL REAGENT	PVC Type 1 1120 (12454)	
	73°F	140°
Ethylene Glycol	R	R
Ethylene Oxide	NR	NR
Fatty Acids	R	R
Ferric Acetate	R	NR
Ferric Chloride	R	R
Ferric Hydroxide	R	R
Ferric Nitrate	R	R
Ferric Sulfate	R	R
Ferrous Chloride	R	R
Ferrous Hydroxide	R	?
Ferrous Nitrate	R	?

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CHEMICAL REAGENT	PVC Type 1 1120 (12454)	
	73°F	140°
Ferrous Sulfate	R	R
Fish Solubles	R	R
Fluorine Gas	R	NR
Fluorine Gas (wet)	R	NR
Fluoroboric Acid	R	R
Fluorosilicic Acid 25%	R	R
Formaldehyde	R	R
Formic Acid < 25%	R	NR
Formic Acid > 25%	?	?
Freon 11	R	R
Freon 113	R	?
Freon 114	R	?
Freon 12	R	R
Freon 21	NR	NR
Freon 22	NR	NR
Fructose	R	R
Fruit juices & pulp	R	R
Furfural	NR	NR
Gallic Acid	R	R
Gas (Coke Oven)	NR	NR
Gasoline	NR	NR
Gasoline, HighOctane	NR	NR
Gasoline Jet Fuel	NR	NR
Glucose	R	R
Glycerine	R	R
Glycol	R	R
Glycol Ethers	?	?
Glycolic Acid	R	R
Grape Sugar	R	R
Green Liquor	R	R
Halocarbon Oils	?	?
Heptane	R	R
Hercolyn	R	?
Hexane	R	NR
Hexanol,Tertiary	R	R
Hydrazine	NR	NR
Hydrobromic Acid 20%	R	R

CHEMICAL REAGENT	PVC Type 1 1120 (12454)	
	73°F	140°
Hydrochloric Acid 10%	R	R
Hydrochloric Acid 30%	R	R
Hydrochloric Acid 36%	R	R
Hydrochloric Acid Concentrated	R	R
Hydrochloric Acid pickling	R	R
Hydrocyanic Acid	R	R
Hydrofluoric Acid 3%	R	R
Hydrofluoric Acid 48%	R	NR
Hydrofluoric Acid 50%	R	NR
Hydrofluoric Acid 70%	NR	NR
Hydrofluorsilicic Acid 30%	R	R

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CHEMICAL REAGENT	PVC Type 1 1120 (12454)	
	73°F	140°
Manganese Sulfate	R	R
Mercural Ointment Blue 5%	R	?
Mercuric Chloride	R	R
Mercuric Cyanide	R	R
Mercuric Sulfate	R	R
Mercurous Nitrate	R	R
Mercury	R	R
Mercury Ointment Ammoniated	R	?
Methanol <10%	R	R
Methanol >10%	R	R
Methoxyethyl Oleate	R	?
Methyl Cellosolve	NR	NR
Methyl Chloride	NR	NR
Methyl Ethyl Ketone	NR	NR
Methyl Formate	?	?
Methyl Iso-Butyl Ketone	NR	NR
Methyl Methacrylate	R	?
Methyl Salicylate	R	?
Methyl Sulfate	R	NR
Methyl Sulfuric Acid	R	R
Methylamine	NR	NR
Methylene Bromide	NR	NR
Petroleum Liquifier	R	R
Petroleum Oils (Sour)	R	NR
Phenol	NR	NR
Phenylhydrazine	NR	NR
Phenylhydrazine Hydrochloride	NR	NR
Phosgene, Gas	R	?
Phosgene, Liquid	NR	NR
Phosphoric Acid, up to 85%	R	R
Phosphorous Pentoxide	R	NR
Phosphorous Trichloride	NR	NR
Phosphorous, (Yellow)	R	NR
Photographic Solutions:	R	R
Photographic Solutions: DK #3	R	R
Photographic Solutions:	R	R

CHEMICAL REAGENT	PVC Type 1 1120 (12454)	
	73°F	140°
Photographic Solutions: Kodak Short Stop	R	R
Picric Acid	NR	NR
Plating Solutions: Brass	R	R
Plating Solutions: Cadmium	R	R
Plating Solutions: Copper	R	R
Plating Solutions: Gold	R	R
Plating Solutions: Indium	R	R
Plating Solutions: Lead	R	R
Plating Solutions: Nickel	R	R

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CHEMICAL REAGENT	PVC Type 1 1120 (12454)	
	73°F	140°
Hydrogen	R	R
Hydrogen Peroxide 30%	R	R
Hydrogen Peroxide 90%	R	R
Hydrogen Phosphide	R	R
Hydrogen Sulfide	R	R
Hydroquinone	R	R
Hydroxylamine Sulfate	R	R
Hypochlorite (Potassium & Sodium)	R	?
Hypochlorous Acid	R	R
Iodine	NR	NR
Iodine Solution 10%	NR	NR
Isopropanol	?	?
Kerosene	R	R
Ketones	NR	NR
Kraft Liquors	R	R
Lactic Acid 25%	R	R
Lactic Acid 80%	R	?
Lard Oil	R	R
Lauric Acid	R	R
Lauryl Chloride	R	?
Lead Acetate	R	R
Lead Chloride	R	R
Lead Nitrate	R	R
Lead Sulfate	R	R
Lemon Oil	?	?
Limonene	?	?
Linoleic Acid	R	R
Linoleic Oil	R	R
Linseed Oil	R	R
Liquors	R	R
Lithium Bromide	R	R
Lithium Sulfate	R	R
Lubricating Oils, ASTM#1	R	R
Lubricating Oils, ASTM#2	R	R
Lubricating Oils, ASTM#3	R	R
Lux Liquid	R	NR
Machine Oil	R	R

CHEMICAL REAGENT	PVC Type 1 1120 (12454)	
	73°F	140°
Magnesium Carbonate	R	R
Magnesium Chloride	R	R
Magnesium Citrate	R	R
Magnesium Fluoride R	R	R
Magnesium Hydroxide	R	R
Magnesium Nitrate	R	R
Magnesium Oxide	R	R
Magnesium Salts	R	R
Magnesium Sulfate	R	R
Maleic Acid 50%	R	R
Manganese Chloride	R	R

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CHEMICAL REAGENT	PVC Type 1 1120 (12454)	
	73°F	140°
Propylene Glycol > 25%	?	?
Propylene Oxide	NR	NR
Pyridine	NR	NR
Pyrogalllic Acid	R	NR
Rayon Coagulating Bath	R	R
Refinery Crudes	R	R
Rochelle Salts	R	R
Salicylic Acid	R	R
Santicizer	NR	NR
Sea Water	R	R
Selenic Acid	R	R
Sewage	R	R
Silicic Acid	R	R
Silicone Oil	?	?
Silver Chloride	R	R
Silver Cyanide	R	R
Silver Nitrate	R	R
Silver Sulfate	R	R
Soaps	R	R
Sodium Acetate	R	R
Sodium Alum	R	R
Sodium Arsenate	R	R
Sodium Benzoate	R	R
Sodium Bicarbonate	R	R
Sodium Bichromate	R	R
Sodium Bisulfate	R	R
Sodium Bisulfite	R	R
Sodium Borate	R	R
Sodium Bromide	R	R
Sodium Carbonate	R	R
Sodium Chlorate	R	NR
Sodium Chloride	R	R
Sodium Chlorite	NR	NR
Sodium Chromate	R	R
Sodium Cyanide	R	R
Sodium Dichromate	R	R
Sodium Ferricyanide	R	R

CHEMICAL REAGENT	PVC Type 1 1120 (12454)	
	73°F	140°
Sodium Ferrocyanide	R	R
Sodium Fluoride	R	R
Sodium Formate	?	?
Sodium Hydroxide 50%	R	R
Sodium Hypobromite	R	R
Sodium Hypochlorite	R	R
Sodium Iodide	R	R
Sodium Metaphosphate	R	R
Sodium Nitrate	R	R
Sodium Nitrite	R	R
Sodium Perchlorate	R	R
Sodium Peroxide	R	R

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CHEMICAL REAGENT	PVC Type 1 1120 (12454)	
	73°F	140°
Plating Solutions: Rhodium	R	R
Plating Solutions: Silver	R	R
Plating Solutions: Tin	R	R
Plating Solutions: Zinc	R	R
Polyethylene Glycol	?	?
Potash (Sat.Aq.)	R	R
Potassium Acetate	R	R
Potassium Alum	R	R
Potassium Amyl Xanthate	R	NR
Potassium Bicarbonate	R	R
Potassium Bichromate	R	R
Potassium Bisulfate	R	R
Potassium Borate	R	R
Potassium Bromate	R	R
Potassium Bromide	R	R
Potassium Carbonate	R	R
Potassium Chlorate	R	R
Potassium Chloride	R	R
Potassium Chromate	R	R
Potassium Cyanate	R	R
Potassium Cyanide	R	R
Potassium Dichromate	R	R
Potassium Ethyl Xanthate	R	NR
Potassium Ferricyanide	R	R
Potassium Ferrocyanide	R	R
Potassium Fluoride	R	R
Potassium Hydroxide	R	R
Potassium Hypochlorite	R	R
Potassium Iodide	R	R
Potassium Nitrate	R	R
Potassium Perborate	R	R
Potassium Perchlorate	R	R
Potassium Permanganate 10%	R	R
Potassium Permanganate 25%	R	NR
Potassium Persulfate	R	R
Potassium Phosphate	R	R
Potassium Sulfate	R	R

CHEMICAL REAGENT	PVC Type 1 1120 (12454)	
	73°F	140°
Potassium Sulfide	R	R
Potassium Sulfite	R	R
Potassium Tripolyphosphate	R	R
Propane	R	R
Propane Gas	R	R
Propanol 0.5%	R	R
Propanol > 0.5%	R	R
Propargyl Alcohol	R	R
Propionic Acid 2%	?	?
Propionic Acid > 2%	?	?
Propylene Dichloride	NR	NR
Propylene Glycol 25%	?	?

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CHEMICAL REAGENT	PVC Type 1 1120 (12454)	
	73°F	140°
Triethanolamine	R	NR
Trilones	NR	NR
Trimethyl Propane	R	R
Trimethylamine	R	NR
Trisodium Phosphate	R	R
Turpentine	R	R
Urea	R	R
Urine	R	R
Vaseline	NR	NR
Vegetable Oils	R	?
Vinegar	R	R
Vinyl Acetate	NR	NR
Water: Acid Mine	R	R
Water: Deionized	R	R
Water: Demineralized	R	R
Water: Distilled	R	R
Water: Fresh & Salt	R	R
Water: Swimming Pool	R	R
WD-40	?	?
Whiskey	R	R
White Liquor	R	R
Wines	R	R
Xylene or Xylol	NR	NR
Zinc Acetate	R	R
Zinc Carbonate	R	R
Zinc Chloride	R	R
Zinc Nitrate	R	R
Zinc Sulfate	R	R

R = Recommended NR = Not Recommended

C = Caution, actual testing suggested; suspect @ certain stress levels ? = Incomplete Data; actual testing required



CHEMICAL REAGENT	PVC Type 1 1120 (12454)	
	73°F	140°
Sodium Silicate	R	NR
Sodium Sulfate	R	R
Sodium Sulfide	R	R
Sodium Sulfite	R	R
Sodium Thiosulfate	R	R
Sodium Tripolyphosphate	?	?
Sour Crude Oil	R	R
Soybean Oil	R	R
Stannic Chloride	R	R
Stannous Chloride	R	R
Stannous Sulfate	R	R
Starch	R	R
Stearic Acid	R	R
Stoddards Solvent	NR	NR
Styrene	NR	NR
Succinic Acid	R	R
Sugar	R	R
Sulfamic Acid	NR	NR
Sulfite Liquor	R	R
Sulfur	R	R
Sulfur Dioxide dry	R	R
Sulfur Dioxide wet	R	NR
Sulfur Trioxide	R	R
Sulfuric Acid 70%	R	R
Sulfuric Acid 80%	R	R
Sulfuric Acid 85%	R	R
Sulfuric Acid 90%	R	NR
Sulfuric Acid 98%	?	NR
Sulfuric Acid Fuming	NR	NR
Sulfuric Acid Pickling	R	R
Sulfurous Acid	R	R
Tall Oil	R	R
Tan Oil	R	R
Tannic Acid 30%	R	R
Tanning Liquors	R	R
Tartaric Acid	R	R
Terpenes	?	?

CHEMICAL REAGENT	PVC Type 1 1120 (12454)	
	73°F	140°
Terpineol	R	?
Tetraethyl Lead	R	?
Texanol	?	?
Thionyl Chloride	NR	NR
Thread Cutting Oil	R	?
Titanium Tetrachloride	R	NR
Toluol or Toluene	NR	NR
Transformer Oil	R	R
Tributyl Citrate	R	?
Tributyl Phosphate	NR	NR
Trichloroacetic Acid	R	?
Trichloroethylene	NR	NR

R = Recommended NR = Not Recommended

C = Caution, actual testing suggested; suspect @ certain stress levels ? = Incomplete Data; actual testing required

PRODUCT RANGE





Product Range of Sintex SWRX



SWRX PRO TYPE A (PUSH FIT)				
Socket Type	Length	OD Size (cm)	OD size (inch)	Material Code
S/S	3	11	-	3SWPSAP3M110
S/S	3	7.5	-	3SWPSAP3M075
S/S	6	11	-	3SWPSAS6M110
S/S	3	11	-	3SWPSAS3M110
S/S	3	16	-	3SWPSAP3M160
S/S	6	7.5	-	3SWPSAS6M075
D/S	3	11	-	3SWPDAP3M110
S/S	3	7.5	-	3SWPSAS3M075
S/S	3	16	-	3SWPSAS3M160
D/S	1.8	11	-	3SWPDAP6F110
S/S	6	16	-	3SWPSAS6M160
S/S	3	9	-	3SWPSAP3M090
S/S	6	9	-	3SWPSAS6M090
D/S	3	7.5	-	3SWPDAP3M075
S/S	6	11	-	3SWPSAP6M110



OD Size (cm)	OD Size (inch)	Material Code	H (mm)	L (mm)	D (mm)	d (mm)	e (mm)
7.5	2½"	SWFPB4500000075	157.0	-	76.2	75.3	3.2
9	3"	SWFPB4500000090	185.0	-	91.2	90.3	3.3
11	4"	SWFPB4500000110	211.0	-	111.2	110.3	3.3
16	6"	SWFPB4500000160	290.0	-	161.5	160.5	3.3



OD Size (cm)	OD Size (inch)	Material Code	H (mm)	L (mm)	D (mm)	d (mm)	e (mm)
7.5	2½"	SWFSB4500000075	146.0	40.0	76.2	75.3	3.3
11	4"	SWFSB4500000110	186.0	48.0	111.3	110.4	3.3
16	6"	SWFSB4500000160	253.0	58.0	161.5	160.5	3.3



OD Size (cm)	OD Size (inch)	Material Code	H (mm)	L (mm)	D (mm)	d (mm)	e (mm)
7.5	2½"	SWFPB8700000075	-	45.0	75.0	75.0	3.2
9	3"	SWFPB8700000090	174	173	105	-	-
11	4"	SWFPB8700000110	-	55.0	110.0	110.0	3.3
16	6"	SWFPB8700000160	-	74	160	160	11



OD Size (cm)	OD Size (inch)	Material Code	H (mm)	L (mm)	D (mm)	d (mm)	e (mm)
7.5	2½"	SWFSB8700000075	166.0	40.0	76.2	75.3	3.3
11	4"	SWFSB8700000110	178.0	48.0	113	110.4	3.3
16	6"	SWFSB8700000160	248.0	58.0	161.5	160.5	3.3



OD Size (cm)	OD Size (inch)	Material Code	H (mm)	L (mm)	D (mm)	d (mm)	e (mm)
7.5	2½"	SWFPCLP00000075	188.8	46.0	76.0	75.0	3.2
11	4"	SWFPCLP00000110	250.0	55.0	110.0	110.0	3.2



OD Size (cm)	OD Size (inch)	Material Code	H (mm)	L (mm)	D (mm)	d (mm)	e (mm)
11	4"	SWFSCLP00000110	188.8	46.0	76.0	75.0	3.2



**CORRUGATED
WASTE PIPE**

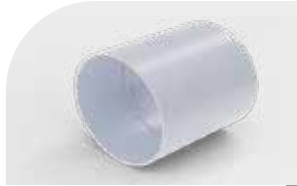
OD Size (cm)	OD Size (inch)	Material Code
3.5	Ø	SWF0CWPO0000035



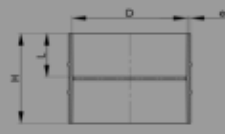
COUPLER (PUSH FIT)



OD Size (cm)	OD Size (inch)	Material Code	H (mm)	L (mm)	D (mm)	d (mm)	e (mm)
7.5	2½"	SWFPCU0000000075	102.0	49.4	77.7	-	2.6
11	4"	SWFPCU0000000110	128.0	62.0	110.0	-	3.0
16	6"	SWFPCU0000000160	152.0	74.0	160.0	-	3.7



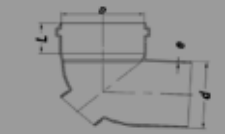
COUPLER (SOL FIT)



OD Size (cm)	OD Size (inch)	Material Code	H (mm)	L (mm)	D (mm)	d (mm)	e (mm)
7.5	2½"	SWFSCU0000000075	90.0	43.5	75.0	-	3.0
11	4"	SWFSCU0000000110	100.0	48.5	110.0	-	3.0
16	6"	SWFSCU0000000160	120.0	58.5	160.0	-	3.7



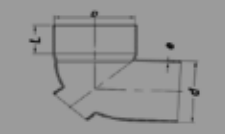
DOOR BEND (PUSH FIT)



OD Size (cm)	OD Size (inch)	Material Code	H (mm)	L (mm)	D (mm)	d (mm)	e (mm)
7.5	2½"	SWFPDB0000000075	-	45.0	75.0	75.0	3.2
11	4"	SWFPDB0000000110	-	55.0	110.0	110.0	3.3



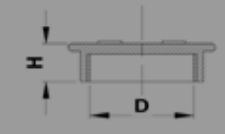
DOOR BEND (SOL FIT)



OD Size (cm)	OD Size (inch)	Material Code	L (mm)	D (mm)	d (mm)	e (mm)
7.5	2½"	SWFSD0B0000000075	40.5	75.0	75.0	3.2
11	4"	SWFSD0B0000000110	48.5	110.0	110.0	3.3



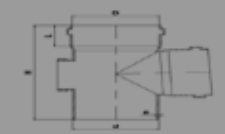
DOOR CAP



OD Size (cm)	OD Size (inch)	Material Code	H (mm)	L (mm)	D (mm)
7.5	2½"	SWFPD0CP0000000075	21.5	-	69.7
11	4"	SWFPD0CP0000000110	24.5	-	100.8



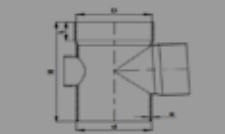
DOOR TEE (PUSH FIT)



OD Size (cm)	OD Size (inch)	Material Code	H (mm)	L (mm)	D (mm)	d (mm)	e (mm)
7.5	2½"	SWFPD0T0000000075	188.8	46.0	76.0	75.0	3.2
11	4"	SWFPD0T0000000110	240.0	55.0	110.0	110.0	3.3



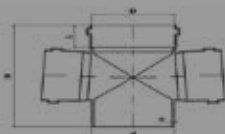
DOOR TEE (SOL FIT)



OD Size (cm)	OD Size (inch)	Material Code	H (mm)	L (mm)	D (mm)	d (mm)	e (mm)
7.5	2½"	SWFSD0T0000000075	184.0	40.5	75.0	75.0	3.2
11	4"	SWFSD0T0000000110	235.0	48.5	110.0	110.0	3.3



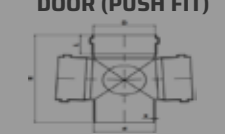
DOUBLE TEE (PUSH FIT)



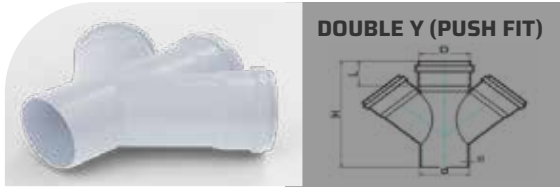
OD Size (cm)	OD Size (inch)	Material Code	H (mm)	L (mm)	D (mm)	d (mm)	e (mm)
7.5	2½"	SWFPD0T0000000075	188.8	46.0	76.0	75.0	3.2
11	4"	SWFPD0T0000000110	256.8	58.8	111.1	110.0	3.2



**DOUBLE TEE WITH
DOOR (PUSH FIT)**



OD Size (cm)	OD Size (inch)	Material Code	H (mm)	L (mm)	D (mm)	d (mm)	e (mm)
7.5	2½"	SWFPD0T0000000075	188.8	46.0	76.0	75.0	3.2
11	4"	SWFPD0T0000000110	256.8	58.8	111.1	110.0	3.2



OD Size (cm)	OD Size (inch)	Material Code	H (mm)	L (mm)	D (mm)	d (mm)	e (mm)
7.5	2½"	SWFPDBY00000075	219.5	46.0	76.0	75.0	3.2
11	4"	SWFPDBY00000110	304.0	58.8	111.1	110.0	3.2



OD Size (cm)	OD Size (inch)	Material Code	H (mm)	L (mm)	D (mm)	d (mm)	e (mm)
11	4"	SWFPDBY00000110	256.8	58.8	111.1	110.0	3.2



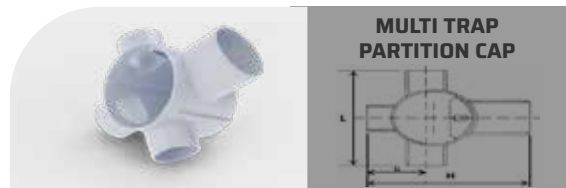
OD Size (cm)	OD Size (inch)	Material Code	H (mm)	L (mm)	D (mm)	d (mm)	e (mm)
11x7.5	4"x2½"	SWFPECR00011075	148.5	45.5	76.0	110.0	3.2
16x11	6"x4"	SWFPECR00160110	186.0	55.0	110.0	160.0	4.1



OD Size (cm)	OD Size (inch)	Material Code	H (mm)	L (mm)	D (mm)	d (mm)	e (mm)	A (mm)
11	4"	SWF5GTJ00000110	240.0	64.0	134.0	110.0	3.0	284.0



OD Size (cm)	OD Size (inch)	Material Code	H (mm)	L (mm)	D (mm)	d (mm)	e (mm)
11	4"	SWFPLSWB0000110	323.0	317.0	160.0	160.0	4.0



OD Size (cm)	OD Size (inch)	Material Code
11	4"	SWF0MTPC0000110
11	4"	SWF0MTPWC0000110



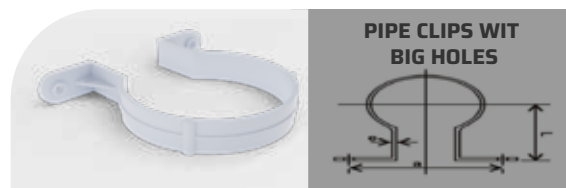
OD Size (cm)	OD Size (inch)	Material Code	H (mm)	L (mm)	D (mm)	d (mm)	e (mm)
11x7.5x5	4"x2½"x1½"	SWFSMT401107550	180.0	210.0	110.0	-	3.0
11x7.5x5	4X2½"x1½"	SWFSMT701107550	180.0	210.0	110.0	-	3.0



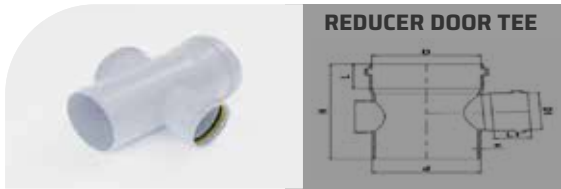
OD Size (cm)	OD Size (inch)	Material Code	H (mm)	L (mm)	D (mm)	d (mm)	e (mm)	B (mm)
11x11	4"x4"	SWFSNT000110110	88.0	-	-	110.0	3.0	125
11x7.5	4"x2½"	SWFSNT000011075	86.2	75.0	3.0	33.0	75.0	124.3
11x9	4"x3"	SWFSNT000011090	88.0	-	-	90.0	3.0	125



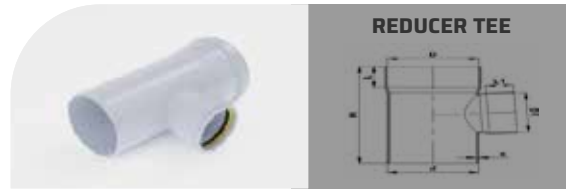
OD Size (cm)	OD Size (inch)	Material Code	H (mm)	L (mm)	D (mm)	d (mm)	e (mm)	h1 (mm)
11x12.5	4"x4½"	SWFOPTSD0110125	-	-	-	-	-	-
11x11	4"x4"	SWFOPTSD0110110	196.0	62.0	110.0	110.0	3.3	250



OD Size (cm)	OD Size (inch)	Material Code	H (mm)	L (mm)	D (mm)	d (mm)	e (mm)
7.5	2½"	SWFOPCBH0000075	-	68.5	-	-	3.0
9		SWFOPCBH0000090	122.0	140.0	-	-	3.0
11	4"	SWFOPCBH00000110	-	85.5	-	-	3.0
16	6"	SWFOPCBH00000160	210.0	180.0	-	-	-



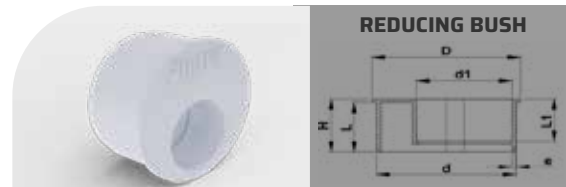
OD Size (cm)	OD Size (inch)	Material Code	H (mm)	L (mm)	D (mm)	d (mm)	e (mm)	L1 (mm)	D1 (mm)
11x7.5	4"x2½"	SWFPRDOT0011075	256.8	58.8	111.1	110.0	3.2	46.0	76.0



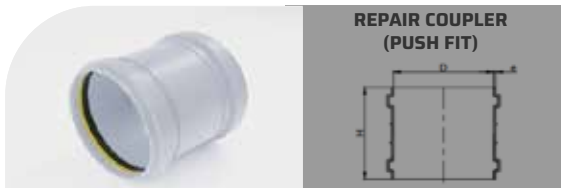
OD Size (cm)	OD Size (inch)	Material Code	H (mm)	L (mm)	D (mm)	d (mm)	e (mm)	L1 (mm)	D1 (mm)
11x7.5	4"x2½"	SWFPRTD00011075	256.8	58.8	111.1	110.0	3.2	46.0	76.0
16x11	6"x4"	SWFPRTD00160110	289.0	74.0	160.0	160.0	4.1	55.0	110.0
11x7.5	4"x2½"	SWFSRTD00011075	235.0	48.5	110.0	110.0	3.3	40.5	75.0
16x11	6"x4"	SWFSRTD00160110	276.0	58.5	160.0	160.0	4.1	48.5	110.0



OD Size (cm)	OD Size (inch)	Material Code	H (mm)	L (mm)	D (mm)	d (mm)	e (mm)	L1 (mm)	D1 (mm)
11x7.5	4"x2½"	SWFPRYD00011075	303.5	58.8	111.1	110.0	3.2	46.0	76.0
16x11	6"x4"	SWFPRYD00160110	335.0	74.0	160.0	160.0	4.1	55.0	110.0
11x7.5	4"x2½"	SWFSRYD00011075							



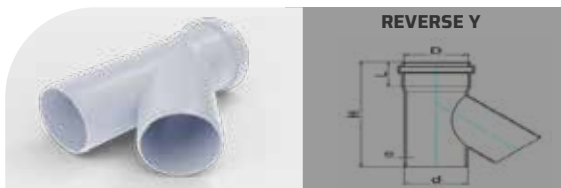
OD Size (cm)	OD Size (inch)	Material Code	H (mm)	L (mm)	D (mm)	d (mm)	e (mm)	L1 (mm)
11x7.5	4"x2½"	SWFSRBU00011075	52.0	48.0	118.0	110.0	3.3	41.0
7.5x4	2½"x1¼"	SWFSRBU00007540	43.0	40.0	81.0	75.0	3.3	26.5
9x7.5	3"x2½"	SWFSRBU00009075	50.0	46.0	98.0	90.0	3.3	41.0



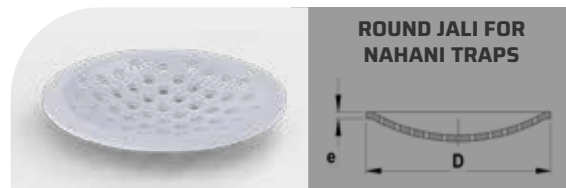
OD Size (cm)	OD Size (inch)	Material Code	H (mm)	L (mm)	D (mm)	d (mm)	e (mm)
7.5	2½"	SWFPREPCU000075	102.8	-	75.0	-	2.6
11	4"	SWFPREPCU000110	128.0	-	110.0	-	3.0
16	6"	SWFPREPCU000160	152.0	-	160.0	-	3.7



OD Size (cm)	OD Size (inch)	Material Code	H (mm)	L (mm)	D (mm)	d (mm)	e (mm)
7.5	2½"	SWFSREPCU000075	90.0	-	75.0	-	3.0
11	4"	SWFSREPCU000110	100.0	-	110.0	-	3.0



OD Size (cm)	OD Size (inch)	Material Code	H (mm)	L (mm)	D (mm)	d (mm)	e (mm)
7.5	2½"	SWFPRVY00000075	220.0	45.0	75.0	75.0	3.2



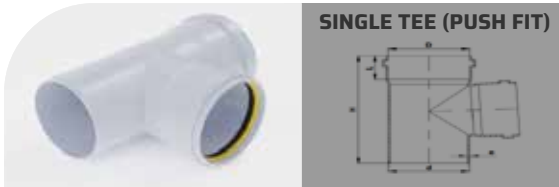
OD Size (cm)	OD Size (inch)	Material Code	H (mm)	L (mm)	D (mm)	d (mm)	e (mm)
11	4"	SWFORJLNT000110	-	-	122.0	-	3.0



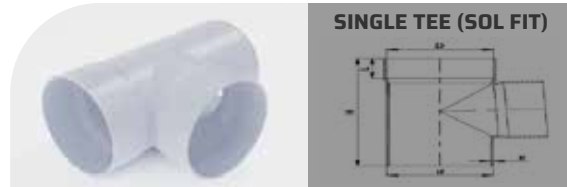
OD Size (cm)	OD Size (inch)	Material Code	H (mm)	L (mm)	D (mm)	d (mm)	e (mm)
3.2	0	SWF05CT00000032					



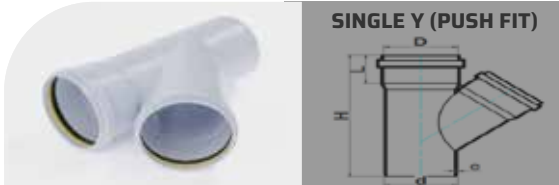
OD Size (cm)	OD Size (inch)	Material Code	H (mm)	L (mm)	D (mm)	d (mm)	e (mm)
11	4"	SWF05GPP0000110					



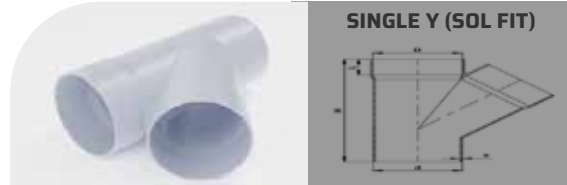
OD Size (cm)	OD Size (inch)	Material Code	H (mm)	L (mm)	D (mm)	d (mm)	e (mm)
7.5	2½"	SWFP5GT00000075	188.8	46.0	76.0	75.0	3.2
11	4"	SWFP5GT00000110	240.0	55.0	110.0	110.0	3.3
16	6"	SWFP5GT00000160	338.0	74.0	160.0	160.0	4.1



OD Size (cm)	OD Size (inch)	Material Code	H (mm)	L (mm)	D (mm)	d (mm)	e (mm)
7.5	2½"	SWF55GT00000075	184.0	40.5	75.0	75.0	3.2
11	4"	SWF55GT00000110	235.0	48.5	110.0	110.0	3.3



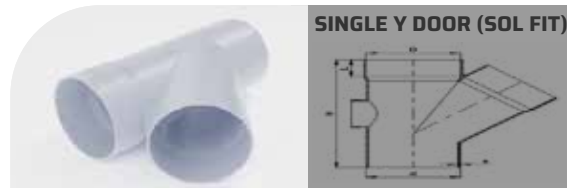
OD Size (cm)	OD Size (inch)	Material Code	H (mm)	L (mm)	D (mm)	d (mm)	e (mm)
7.5	2½"	SWFP5GY00000075	219.5	46.0	76.0	75.0	3.2
11	4"	SWFP5GY00000110	280.0	55.0	110.0	110.0	3.3



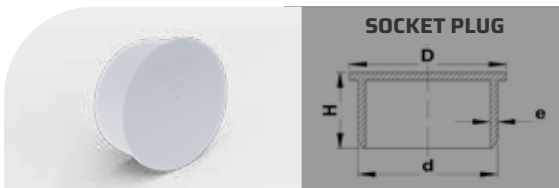
OD Size (cm)	OD Size (inch)	Material Code	H (mm)	L (mm)	D (mm)	d (mm)	e (mm)
7.5	2½"	SWF55GY00000075	208.0	40.5	75.0	75.0	3.2
11	4"	SWF55GY00000110	276.0	48.5	110.0	110.0	3.3
16	6"	SWF55GY00000160	380.0	58.5	160.0	160.0	4.1



OD Size (cm)	OD Size (inch)	Material Code	H (mm)	L (mm)	D (mm)	d (mm)	e (mm)
7.5	2½"	SWFP5GYD00000075	219.5	46.0	76.0	75.0	3.2
11	4"	SWFP5GYD00000110	280.0	55.0	110.0	110.0	3.3



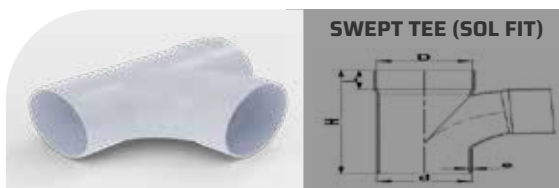
OD Size (cm)	OD Size (inch)	Material Code	H (mm)	L (mm)	D (mm)	d (mm)	e (mm)
7.5	2½"	SWF55GYD00000075	208.0	40.5	75.0	75.0	3.2
11	4"	SWF55GYD00000110	276.0	48.5	110.0	110.0	3.3
16	6"	SWF55GYD00000160	380.0	58.5	160.0	160.0	4.1



OD Size (cm)	OD Size (inch)	Material Code	H (mm)	L (mm)	D (mm)	d (mm)	e (mm)
7.5	2½"	SWF55OPG00000075	43.0	-	85.0	75.0	3.2
11	4"	SWF55OPG00000110	52.0	-	120.0	110.0	3.3
16	6"	SWF55OPG00000160	62.0	-	175.0	160.0	4.1



OD Size (cm)	OD Size (inch)	Material Code	H (mm)	L (mm)	D (mm)	d (mm)	e (mm)
11	4"	SWFP5WT00000110	273.0	55.0	110.0	110.0	3.3



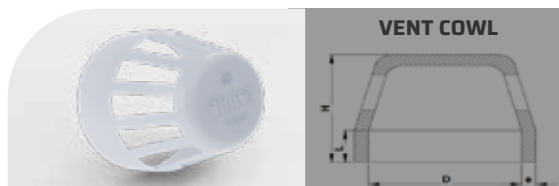
OD Size (cm)	OD Size (inch)	Material Code	H (mm)	L (mm)	D (mm)	d (mm)	e (mm)
11	4"	SWF55WT00000110	266.0	48.5	110.0	110.0	3.3



OD Size (cm)	OD Size (inch)	Material Code	H (mm)	L (mm)	D (mm)	d (mm)	e (mm)
11	4"	SWFP5WT00000110	273.0	55.0	110.0	110.0	3.3



OD Size (cm)	OD Size (inch)	Material Code	H (mm)	L (mm)	D (mm)	d (mm)	e (mm)
11	4"	SWFSSWTD00000110	266.0	48.5	110.0	110.0	3.3



OD Size (cm)	OD Size (inch)	Material Code	H (mm)	L (mm)	D (mm)	d (mm)	e (mm)
7.5	2½"	SWFOVCWL00000075	73.3	24.0	75.4	-	2.2
11	4"	SWFOVCWL00000110	87.0	25.5	110.5	-	2.2



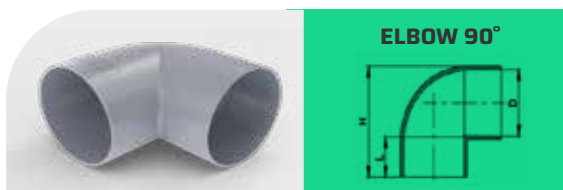
OD Size (cm)	OD Size (inch)	Material Code	H (mm)	L (mm)	D (mm)	d (mm)	e (mm)
11x12.5	4X4½"	SWFSWCS00110125	122	450			



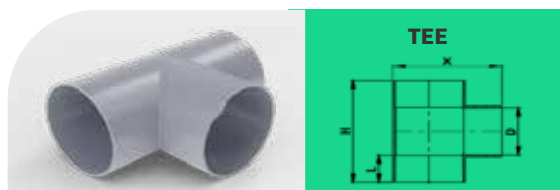
OD Size (cm)	OD Size (inch)	Material Code	D (mm)	L (mm)
7.5	2½"	SWFOYSORG00000075	85.01	76.2
9	3"	SWFOYSORG00000090	100	91.2
11	4"	SWFOYSORG00000110	121.5	111.3
16	6"	SWFOYSORG00000160	174.14	161.5

PRODUCT RANGE

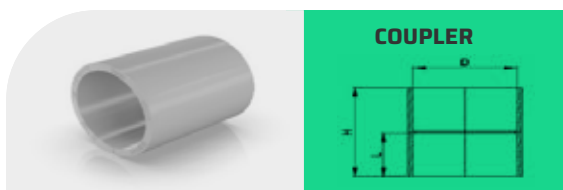




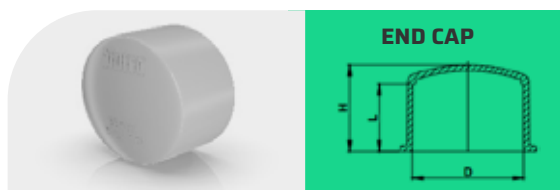
OD Size (cm)	OD Size (inch)	Material Code	H (mm)	L (mm)	D (mm)
6.3	2"	AGF60EL90000063	105.50	38.00	63.50
7.5	2½"	AGF60EL90000075	123.50	44.00	75.50
9	3"	AGF60EL90000090	145.50	51.00	90.50
11	4"	AGF60EL90000110	176.50	61.00	110.50



OD Size (cm)	OD Size (inch)	Material Code	H (mm)	L (mm)	D (mm)	X (mm)
6.3	2"	AGF60T000000063	141.50	38.00	63.50	105.50
7.5	2½"	AGF60T000000075	165.50	44.00	75.50	123.50
9	3"	AGF60T000000090	194.50	51.00	90.50	145.50
11	4"	AGF60T000000110	238.50	61.00	110.50	176.50



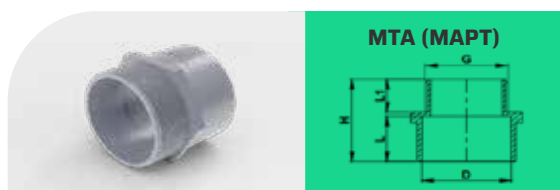
OD Size (cm)	OD Size (inch)	Material Code	H (mm)	L (mm)	D (mm)
6.3	2"	AGF60CU00000063	78.00	38.00	63.50
7.5	2½"	AGF60CU00000075	91.00	44.00	75.50
9	3"	AGF60CU00000090	106.00	51.00	90.50
11	4"	AGF60CU00000110	127.00	61.00	110.50



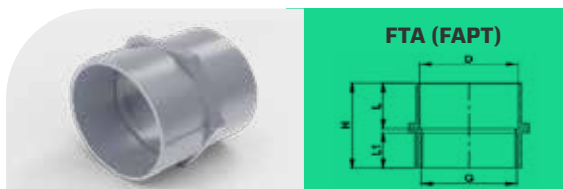
OD Size (cm)	OD Size (inch)	Material Code	H (mm)	L (mm)	D (mm)
6.3	2"	AGF60EC00000063	49.00	38.00	63.50
7.5	2½"	AGF60EC00000075	54.00	44.00	75.50
9	3"	AGF60EC00000090	65.00	51.00	90.50
11	4"	AGF60EC00000110	72.00	61.00	110.50



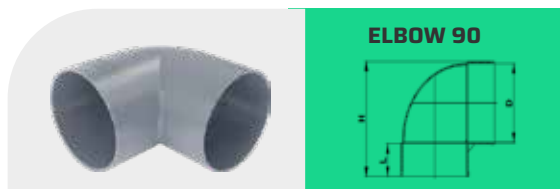
OD Size (cm)	OD Size (inch)	Material Code	H (mm)	L (mm)	D (mm)	G (mm)
6.3	2"	AGF60TEC00000063	38.00	28.00	63.00	2"
7.5	2½"	AGF60TEC00000075	42.00	32.00	75.00	2-1/2"
9	3"	AGF60TEC00000090	52.00	42.00	90.00	3"
11	4"	AGF60TEC00000110	54.00	42.00	110.00	4"



OD Size (cm)	OD Size (inch)	Material Code	H (mm)	L (mm)	D (mm)	L1 (mm)	G (mm)
6.3	2"	AGF60MAPT00000063	70.00	38.00	63.50	38.00	2"
7.5	2½"	AGF60MAPT00000075	82.50	44.00	75.50	44.00	2-1/2"
9	3"	AGF60MAPT00000090	94.00	51.00	90.50	51.00	3"
11	4"	AGF60MAPT00000110	108.00	61.00	110.50	61.00	4"



OD Size (cm)	OD Size (inch)	Material Code	H (mm)	L (mm)	D (mm)	L1 (mm)	G (mm)
6.3	2"	AGF60FAPT00000063	74.00	38.00	63.00	33.00	2"
7.5	2½"	AGF60FAPT00000075	91.00	44.00	75.00	44.00	2-1/2"
9	3"	AGF60FAPT00000090	99.00	51.00	90.00	41.00	3"
11	4"	AGF60FAPT00000110	118.00	61.00	110.00	50.00	4"



OD Size (cm)	OD Size (inch)	Material Code	H (mm)	L (mm)	D (mm)
11	4"		161.0	46.0	110.5







SCAN QR CODE
TO KNOW MORE

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