



Product Code	SS00001, SS00002, SS00003 (BS5255) SS00004, SS00005, SS00006 (EN1329)			
Description	Range of Solvent Waste Pipe with Double spigot ends PVC-U for application area code 'B'			
Size Range	1 ¼" (O.D. 36mm) 1 ½" (O.D. 43mm) & 2" (O.D. 56mm) supplied in 4M lengths.			
Colour	White			
Wall Thickness	(BS5255) 1 ¼" = 1.8mm, 1 ½" = 1.9mm, 2" = 2.0mm (EN1329) 1 ¼" = 3.0mm, 1 ½" = 3.0mm, 2" = 3.0mm			
Pack Quantity:	40 / 40 / 20			
Max Operating Temperature	70°C flowing medium with restricted short 1 minute duration at 95°C			
Min Operating Temperature	-20°C flowing fluid			
Material Specification	PVC-U			
Manufactured to:	BS 5255 EN1329 ISO9001:2015 ISO14001:2015			
Pipe support distance (Max) <i>Per EN12056-2:2020</i>	<b>Nom. Dimension</b>	<b>1 ¼"</b>	<b>1 ½"</b>	<b>2"</b>
	Horizontal	0.5m	0.5m	0.5m
	Vertical	1.2m	1.2m	1.2m
Vicat Softening Temperature <i>(VST) EN727/ISO2507-1</i>	Requirement $\geq 79^{\circ}\text{C}$ Result: Pipe:85.2°C Fittings:83.1°C			
Impact Resistance test <i>(Round the clock method- d25) EN744/ISO3127</i>	<b>ND</b>	<b>Mass of striker</b>	<b>Falling height</b>	<b>Result</b>
	1 ¼"	0.5kg	600mm	Pass
	1 ½"	0.5kg	800mm	Pass
	2"	0.5kg	1000mm	Pass
DSC test: <i>ISO18373-1</i>	Requirement: B-onset temperature $>185^{\circ}\text{C}$ Result: 195.6°C			
Branch Pipe Gradients:	A minimum gradient of 18mm per meter for $\leq \varnothing 50\text{mm}$ (2")			
Coefficient of Expansion:	0.06mm/m/K			

For plastic pipe systems the necessary harmonised European Standards (hENs), which allow their CE marking, have not been published yet. This means that it is currently totally illegal to issue a DoP or to apply CE marking to any plastic pipe or fitting unless in very specific cases they are covered by an EAD. This concerns any of the following end-use applications: - non-pressure soil and waste discharge, - Underground non-pressure drainage and sewerage, - Buried and above ground conveyance of liquids under pressure, - Hot and cold-water distribution.

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Product Code	SS1001/2/3 Straight Coupler, SS1004/8 straight reducer, SS15001/2/3 Elbow, SS15004/5/6 45° Bend, SS15007/8 Knuckle Elbow, SS18001/2/3 45° Branch Tee, SS18007/8/9 90° Branch Tee, SS19001/2/3 Access Cap, SS19004/5/6 Pipe Clips
Description	Range of Solvent PVC-U fittings
Size Range	1 ¼", 1 ½" & 2"
Colour	White
Wall Thickness	1 ¼" = 1.8mm – 2.0mm, 1 ½" = 1.9mm-2.05mm, 2" = 2.0 -2.15mm
Max Operating Temperature	70°C flowing medium with restricted short 1 minute duration at 95°C
Min Operating Temperature	-20°C flowing fluid
Material Specification	PVC-U
Manufactured to:	BS 5255/EN1329

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### Storage, Handling & Transportation

Solvent-Weld soil pipe constructed from PVCu is lightweight and very robust, being ridged enough to maintain its shape and flexible enough to resist cracks, but it may still be damaged by improper handling & storage. Care should be taken when loading and unloading the product, do not throw from loading trucks to hard ground and be cautious of dragging the pipe along rough surfaces. Store in a cool and dry location that is not exposed to the sun or UV light. The pipes should be well secured & supported during transportation by using soft fixing straps, if using metallic straps then suitable padding should be used to protect the pipe from any damage. Do not drop pipes from height onto the ground or any uneven surfaces. Store pipes on timbers or padded racks and do not stack more than 2x bundles.

### Health

When using any solvent cement due care should be taken considering all risks involved. Follow the manufacturer's instructions and use PPE where appropriate. Seek medical advice immediately if swallowed. Keep out of reach of children.

### Installation procedure

Installation should be undertaken by a competent person.

#### 1. Prepare the pipe and fitting.

- Cut pipe using a fine-tooth saw, PVCu pipe slice or other suitable means to leave a square clean cut.
- Check that the pipe has been cut square.
- Remove all swarf/burrs and wipe clean.
- Inspect the fitting's socket & ensure it's clean & free from any defects & is the correct dimension for the pipe.

#### 2. Apply Solvent cement.

- Using a suitable size brush apply a thin even coat of solvent cement to the internal surface of the socket first.
- Care should be taken to prevent excess pooling of cement at the back of the socket.
- Apply a thin and even layer of solvent cement to the spigot of the pipe. Ensuring the entire surface is covered and no dry patches are present. A dry patch may make it difficult to insert the pipe along with incorrect bonding.

#### 3. Inserting Pipe spigot to socket

- Make the joint immediately!
- In one single movement, do not stop halfway as the bonding will start to set immediately, making it difficult to insert further into the socket.
- When inserting the pipe spigot, perform a slight twisting action of ¼ turn. This will assist the distribution of the solvent cement for a better joint. (where this can't be done – ensure a proper & even layer of solvent cement)
- Making sure the pipe is pushed 'Home' into the socket.
- Hold the joint in place for a minimum of 30 seconds to prevent movement or joint rejection.
- Immediately wipe off any Excessive Solvent cement with a clean rag from the joint.

#### 4. After making the joint

- Do not disturb the joint for 5 minutes or rough handle for at least 1 hour.
- Do not fill with water until at least 1 hour after making the joint.
- Do not pressurize until fully cured.
- Curing time is based on local environmental factors – temperature, humidity & time.
- Guide: @16°C- 24 hours is suitable and @0°C-48 hours is required.

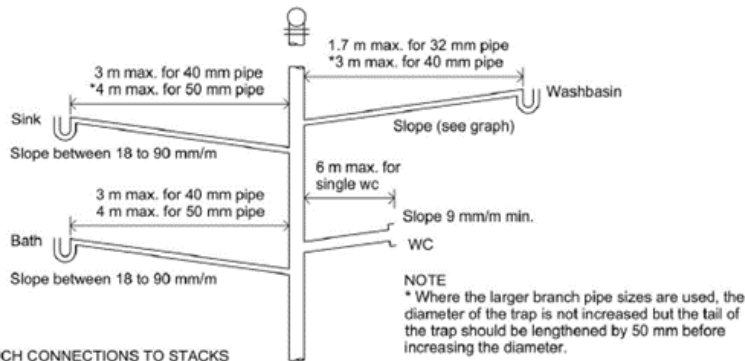


Further information along with system testing details, may be found in:

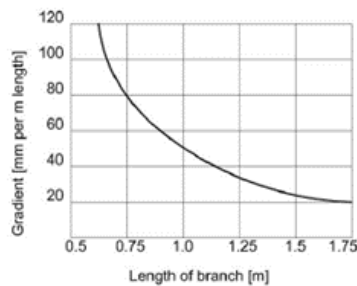
*Note: Smoke test prohibited with PVC-U*

- E.N. 12056-2:2000 Gravity drainage systems inside buildings Part 2: Sanitary pipework, layout and calculations
- Building Regulation 2010 – Technical Guidance Document H  
Drainage & Wastewater Disposal

Diagram 3: Branch connection – Lengths



(A) UNVENTED BRANCH CONNECTIONS TO STACKS



(B) DESIGN CURVE FOR 32 mm WASHBASIN WASTE PIPES

### System I Single discharge stack system with partly filled branch discharge pipes

Sanitary appliances are connected to partly filled branch discharge pipes. The partly filled branch discharge pipes are designed with a filling degree of 0.5 (50 %) and are connected to a single discharge stack.

For other discharge stack systems: refer to your National Regulations in collaboration with EN12056 Series.

It is best to avoid installing or embedding pipes directly into screed/concrete floor. Areas to address: passing load bearing walls, general traffic load, crossing of a floor expansion joint, general pipe expansion, proximity to embedded radiant heating systems, service/replacement and pipe wall damage from sharp edges with-in the aggregate. Care must be taken on these types of installations to not exceed the maximum branch lengths per each diameter. To allow for servicing - a pipe in pipe system may be utilised. I.e., 32mm in 40mm pipe 40mm pipe in a 50mm pipe. Alternatively, an Insulation foam wrap around the pipe may be used to allow some protection and expansion room within the floor. The Pipe will require a minimum screed cover of 50mm.



### Solvent Waste Pipe: Expansion Table

The linear expansion length is calculated using the formula:

$$\Delta L = L \times \alpha \times \Delta T$$

Where:

$\Delta T$	=Temperature
$\Delta L$	=Change in pipe length
L	=length of pipe
$\alpha$	=coefficient of expansion

Coefficient of expansion for Solvent Waste Pipe = 0.06mm/m/°K

Pipe Length (m)	TEMPERATURE DIFFERENTIAL ( $\Delta T$ ) 50°K		
	Ø32mm	Ø40mm	Ø50mm
1	3mm	3mm	3mm
2	6mm	6mm	6mm
3	9mm	9mm	9mm
4	12mm	12mm	12mm

Example: Length of pipe = 2.5m       $\Delta L = 2.5 \times 0.06 \times 50$   
 Ambient Temperature = 20°C       $\Delta L = \underline{7.5\text{mm}}$   
 Water temperature = 70°C  
 Temperature differential = 50°K ( $\Delta T$ )  
 Coefficient of expansion = 0.06mm/m/°K

Note: Delta Temp is taken at 50. 20°c ambient to Maximum operation temperature of 70°C

Note: Linear expansion: diameter not relevant in this formula.

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