



AL OMRANIYA TRADING CO. L.L.C.

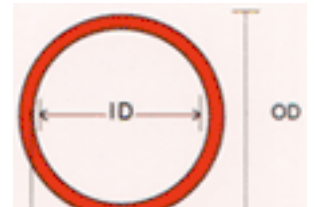
PVC-U Pipes for Drainage

British Standard Range

Waste Pipe (BS 5255), Soil Pipe (BS 4514), Under Ground Pipe (BS 4660), Gravity Sewer Pipe (BS 5481).

National Plastic produces a wide range of PVC-U drainage pipes strictly in accordance with the British Standards that are applicable to drainage systems. The pipes are produced from 100% virgin unplasticized polyvinyl chloride compound (PVC-U).

The range covers sizes from ND 36 (1 1/2") up to ND 400 (16") and is compatible with the full range of either solvent weld or rubber ring joint fittings produced to the same specifications.



Technical Data

Materials :

PVC-U has a number of mechanical and thermal properties that makes it very suitable for drainage applications.

Dimensional accuracy when extruded to give accurate water tight joints in either solvent weld or rubber ring.

Ease of installation and site handling.

Resistant to wide range of chemicals.
 Corrosion resistant to aggressive soil.
 Smooth bore that gives excellent flow characteristics.
 Unaffected by algae and bacteria.
 Resistant to blockage.

Sizes :

Normally pipe is supplied in lengths of 4m or 6m as standard. Lengths of 5.8m can also be supplied to fit inside standard 20 foot containers. Other lengths can be supplied on request.

Dimensions :

All pipe is supplied in dimensions as required in each applicable specification. (See Table 1) Dimensions are marked along with the standard requirements at regular intervals along the pipe.

Temperature Range :

National Plastic drainage pipes are suitable for use with intermittent discharges of liquid in the temperature range of 0°C - 85°C.

Thermal Movement :

The coefficient of expansion of PVC-U is $5.0 \times 10^{-5} / k$ which is equivalent to 1mm per 2m length of pipe per 10°C. Adequate provision for expansion and contraction should be made in the design of above and below ground systems.

PVC-U Properties :

Properties	Value
Density	1.42 kg / m ³
Thermal Conductivity	1.6 w / (mk)
Coefficient of Linear Expansion	$5.0 + 10^{-5} / k$
Vicat Softening Point	82°C
Modulus of Elasticity	3000N / mm ²
Tensile Strength	Min 45N / mm ²
Elongation at Break	Min 80%

Colour :

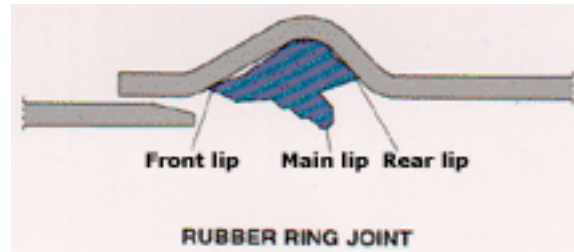
The pipe is supplied in a range of colours.

- BS 5255 Waste - Light Grey
- BS 4514 Soil - Light Grey
- BS 4660 Underground - Golden Brown
- BS 5481 Gravity Sewer - Golden Brown

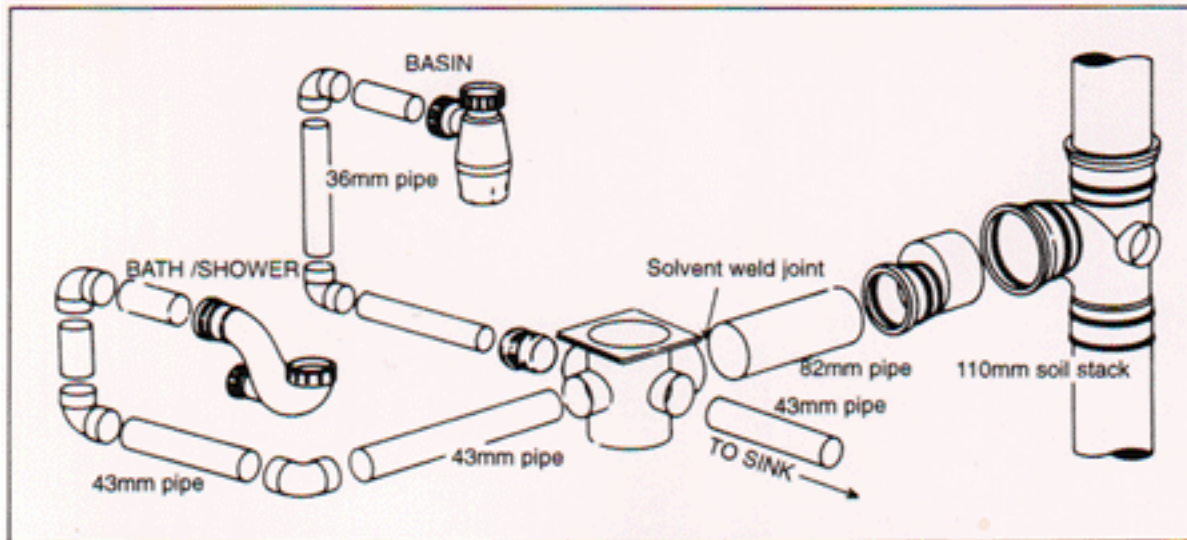


Joints :

The pipe can be supplied in plain end, solvent weld or rubber ring joint. (BS 5255 waste pipe supplied in both ends plain only) The rubber ring joint utilizes a Forsheda type F-575 seal consisting of front lip, main lip and rear lip. The seal meets or exceeds present European standards for pressure, vacuum, defelection and shear loads. The F-575 seal is made of EPDM rubber material in 60 •5 IRHD hardness. The seal is produced under a "kitemark licence" to BS 2494.



Typical Installation



Pipe Dimensions

Table 1

Code	Nominal OD mm (inch)	Minimum OD mm	Minimum Wall Thickness mm	Colour
BS 5255 Waste				
DR-125 / WH	36 (1 •")	36.15	1.8	WH / LG
DR-15 / WH	43 (1 •")	42.75	1.9	WH / LG
DR-2 (50) / WH	*50 (2")	50.00	2.0	WH / LG
DR-2 (55) / WH	55 (2")	55.75	2.0	WH / LG
BS 4514 Soil				

DR-3 /LG	82 (3")	82.40	3.2	LG
DR-4 /LG	110 (4")	110.00	3.2	LG
DR-6 /LG	160 (6")	160.00	3.2	LG
BS 4660 Underground				
DR-4 /BR	110 (4")	110.00	3.2	BR
DR-6 /BR	160 (6")	160.00	4.1	BR
BS 5481 Gravity Sewer				
DR-8 /BR	200 (8")	200.00	4.9	BR
DR-10 /BR	250 (10")	250.00	6.1	BR
DR-12 /BR	315 (12")	315.00	7.7	BR
DR-16 /BR	400 (16")	400.00	9.8	BR

*Note 50mm is an ISO size. The dimension is not covered by a British standard. BS 5255 pipe is supplied with plain ends only.