BIN BROOK
PLASTIC INDUSTRIES

BROOKPLAST
uPVC PIPES

CERTIFIED
ISO 9001

BUREAU VERITAS

Contents

Introduction

Bin Brook Plastic Industries commenced the production of full range of uPVC pipes in the year 1999. Today, the company is known to be the most up-to-date and sophisticated plastic pipe manufacturing company in United Arab Emirates.

Right from the beginning, we have made a commitment to uphold the quality and standards that make us a reliable supplier of quality PVC pipes to this region.

Since the postwar period to today, uPVC pipes have had the upper hand over the other materials such as steel, cast iron, asbestos, cement, clay, etc. because of their high versatility and workability mixed with excellent features.

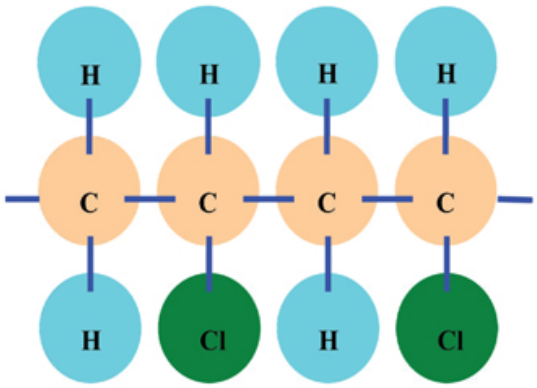
Bin Brook Plastic Industries manufacture a full range of pressure and non-pressure pipes for a variety of applications that include potable water distribution, storm water drainage, cable ducting, land drainage, sewer reticulation and agricultural irrigation.

At present, we are manufacturing uPVC pipes to approved international standards such as ISO, BSI, BS EN and DIN. In addition to this the ETISALAT standard, MS 7A is also incorporated to our manufacturing range to serve our customers.

BROOKPLAST uPVC Pipes are available from 20mm to 630mm OD with integral solvent weld or elastomeric seal ring type socket.

General Information

The adjective "plastic" comes from the the Greek word, *"Plasticos"*, meaning capable of being moulded or shaped. Plastics are fascinating materials which have invaded every aspect of modern life. PVC (Polyvinyl Chloride) is one of the most versatile thermoplastic and one of the most widely used materials and it is available in all degrees of rigidity. PVC is derived from sodium chloride, and undergoes a polymerization process to form a molecular reaction with ethylene to become Polyvinyl Chloride.



PVC POLYMER CHAIN

PRODUCT GUIDE

General Properties of uPVC Material

Property	Unit	Value
Specific Gravity	------	1.43
Compressive Strength	kgf/cm²	670
Hardness Rockwell R	degree	110-120
Tensile Strength	kgf/cm²	450-600
Elongation	%	80-150
Vicat Softening Point	˚C	82
Thermal Conductivity	kcal/m/h˚C	0.13
Cofficient of Linear Expansion	mm/m/h˚C	0.08
Specific Heat	cal/˚C/g	0.2-0.3
Izod Impact Strength	kg-cm/cm²	5-7
Flammability	Self -extinguishing	

Brook Plastic Industries is situated in Sanaiya Industrial Area in Al Ain, U.A.E. It is equipped with the most modern machineries for the extrusions of uPVC pipes. Our sophisticated quality control procedures and advanced manufacturing techniques work hand-in-hand to assure the highest quality and dimensional consistency in thermoplastic pipe products.

Manufacturing Process

PVC Resin is not suitable for direct extrusion . It is mixed with additives like stabilizer, pigment, lubricant, filler, etc. to make a ready to use compound. This pre extrusion process is performed in a high-speed mixer machine. Formulations for the compounding process are carefully developed in our R&D section to ensure a high quality and sound end product.

uPVC pipes are manufactured by continuous extrusion process. The compound prepared in the high-speed mixer is transferred to the hopper of the twin-screw extruder. The compound is then fed into a heated mandrel and forced through a die fitted with central mandrel by the rotating screw. The die and mandrel are controlling the diameter and wall thickness of the pipe taking into consideration the automatic synchronization of extrusion speed to the speed of haul off machine. The pipe shaped extrudate is then passed through the calibrator, cooling tank and finally cut in required length.

Quality Assurance

Bin Brook Plastic Industries operate a quality assurance system in accordance with ISO 9001:2015 and has been successfully assessed in this respect. The standards cover all aspects of product manufacture and inspection. Our recognition by BVQI as a firm of assessed capability to ISO 9001 is your assurance that our products are manufactured to uncompromising quality standards.

Bureau Veritas Certification

BIN BROOK PLASTIC INDUSTRIES

LAND NO. 17, STREET NO. 8, LEETAG, INDUSTRIAL AREA, AL SANAYA ROAD,
P.O. BOX: 16227, AL AIN, UNITED ARAB EMIRATES

This is a multi-site certificate, additional site(s) are listed on the next page(s)

Bureau Veritas Certification Holding SAS - UK Branch certifies that the Management System of the above organisation has been audited and found to be in accordance with the requirements of the management system standards detailed below

ISO 9001:2015

Scope of certification

MANUFACTURING AND DISPATCH OF THERMOPLASTIC PIPES AND FITTING

Original cycle start date:	06 October 2001
Expiry date of previous cycle:	NA
Certification / Recertification Audit date:	NA
Certification / Recertification cycle start date:	02 June 2025
Subject to the continued satisfactory operation of the organisation's Management System, this certificate expires on:	20 June 2028

Certificate No.: AB004903 Version: 1 Issue date: 02 June 2025

UKAS MANAGEMENT SYSTEMS 0008

Krupa Rahul - Certification Manager

Certification Body Address: 5th Floor, 100 Lower Thames Street, London, EC3R 6DL, United Kingdom

Local office: BUREAU VERITAS CERTIFICATION HOLDING - DUBAI BRANCH, Al Hudaiba Awards Building, Block C, 2nd Floor, Jumeirah Road, 2nd December Interchange, P.O.Box. 9110, Dubai, United Arab Emirates.

Further clarifications regarding the scope and validity of this certificate, and the applicability of the management system requirements, please call: +971 2 644 4920

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From the receipt of bulk resin to the final stages of production, we maintain a rigorous quality control program. Using the advanced procedures, equipments and test softwares both on-line QC checks and in-lab are conducted. Company's in-house laboratory is one of the best in the region and is equipped with most modern computerized testing apparatus.

As preventive measure our quality control includes the testing of raw materials prior to production.

Brookplast uPVC pipes are fully tested in our laboratory at appropriate intervals for the following properties:

- Dimensions
- Resistance to internal pressure
- Resistance to external blows
- Longitudinal heat reversion
- Tensile strength and elongation
- Opacity
- Vicat softening point
- Resistance to acetone
- Density
- Tightness of joints
- Long term hydrostatic strength (50 years)
- Resistance to sulphuric acid
- Water absorption
- Loss on ignition

Chemical Resistance of Polyvinyl Chloride

The following tables show the resistance of uPVC Pipes to different kinds of chemicals. The chemical names given in the tables are in accordance with the recommendations listed in BS 2474.

Chemical Environment	Concentration	Temperature°C	Resistance
Acetaldehyde	100%	20	Non Resistant
Acetaldehyde	40% soln.	20	Resistant
Acetaldehyde	40% soln.	60	Non Resistant
Acetic acid	25 – 50%	40	Resistant
Acetic acid	80%	20	Limited
Acetone		20	Non Resistant
Alcohols, see specific alcohols			
Allyl chloride		20	Non Resistant
Ammonia, dry		60	Resistant
Ammonium chloride, aqueous		20	Resistant
Ammonium chloride, aqueous		60	Limited
Ammonium fluoride		20	Resistant
Ammonium fluoride		60	Limited
Aniline		60	Non Resistant
Aqua regia		20	Non Resistant

Chemical Environment	Concentration	Temperature°C	Resistance
Aromatic hydrocarbons		20	Non Resistant
Arsenic acid	<20%	20	Resistant
Beer		20	Resistant
Benzene		20	Non Resistant
Borax		60	Resistant
Butane		20	Resistant
Calcium Chloride	aq. solution	60	Resistant
Carbon dioxide, humid		20	Resistant
Carbon dioxide, humid		60	Limited
Carbon disulphide		20	Limited
Carbon tetrachloride		20	Limited
Carbonic acid, dry or humid		40	Resistant
Caustic soda, aqueous	<40%	40	Resistant
Caustic soda, aqueous	<40%	60	Limited
Cement dry		20	Resistant
Chloric gas, dry or humid		20	Non Resistant
Chloric water		20	Limited
Chlorinated hydrocarbons			Non Resistant
Chloro sulfonic acid	100%	20	Limited
Chromic acid, aqueous	<50%	50	Limited
Chromic acid, aqueous	20%		Limited
Chromo sulfuric acid		60	Non Resistant
Citric acid	10%	60	Limited
Cresols	100%	20	Non Resistant
Cyclo hexanone		20	Non Resistant
Developer (photography)		20	Resistant
Developer (photography)		60	Resistant
Diesel fuel		20	Resistant
Dimethyl formamide		20	Non Resistant

Chemical Environment	Concentration	Temperature°C	Resistance
Dextrin		20	Resistant
Electrolytes		60	Resistant
Emulsifiers		60	Resistant
Ester aliphatic	100%	20	Non Resistant
Ethanol	40% aq. Solution	60	Limited
Ethyl ether		20	Non Resistant
Fatty acid		20	Resistant
Ferrous chloride		60	Resistant
Formaldehyde	40% aqueous	60	Resistant
Formic acid aqueous	50%	60	Non Resistant
Formic acid aqueous	98 – 100%	20	Non Resistant
Glycerin, aqueous		60	Resistant
Heptane	100%	60	Non Resistant
Hydrochloric acid, aqueous	36%	60	Resistant
Hydrofluoric acid, aqueous	40%	60	Non Resistant
Hydrogen peroxide, aqueous	≥90%	20	Non Resistant
Hydrogen sulphide, aqueous		40	Resistant
Hydrogen	100%	60	Resistant
Lactic acid, aqueous	10%	20	Resistant
Lactic acid, aqueous	10%	60	Limited
Methyl alcohol	100%	60	Limited
Methyl ethyl ketone		20	Non Resistant
Milk		60	Resistant
Mineral oil		20	Resistant
Naphtha		60	Resistant
Naphthalene		20	Non Resistant
Nitric acid	25% aq. solution	60	Limited
Nitric acid	50% aq. solution	60	Non Resistant
Nitric acid	70% aq. solution	20	Limited
Nitric acid	98% aq. solution	20	Non Resistant
Oils and Fats (organic)		60	Resistant
Oils and Fats (vegetable)		60	Resistant
Oxalic acid		60	Resistant
Oxygen	Pure gas	60	Resistant
Oxygen	Pure gas	80	Non Resistant

Chemical Environment	Concentration	Temperature°C	Resistance
Ozone		20	Resistant
Paraffin Wax		60	Resistant
Paraffin	100%	60	Resistant
Petroleum		20	Resistant
Petroleum, Benzene mixture	80:20 ratio	20	Non Resistant
Phenol, aqueous		20	Resistant
Phenol, aqueous		60	Non Resistant
Phosphoric acid, aqueous	85%	60	Resistant
Phosgene	100%	20	Non Resistant
Phosgene	100%	60	Non Resistant
Potassium Bicarbonate		60	Resistant
Potassium Permanganate	20%	20	Resistant
Potassium Sulfate		60	Resistant
Propane, gas/liquid	100%	60	Resistant
Sea Water		60	Resistant
Sodium chloride		60	Resistant
Sodium chlorite		20	Non Resistant
Stearic acid	100%	60	Resistant
Sulfur dioxide, aqueous	10%	60	Resistant
Sulfuric acid, aqueous	70%	60	Resistant
Sulfuric acid, aqueous	90%	20	Limited
Sulfuric acid, aqueous	95%	60	Non Resistant
Tartaric acid		60	Resistant
Tetra hydrofuran		20	Non Resistant
Toluene		20	Non Resistant
Urea		60	Resistant
Urine		60	Resistant
Vinegar		20	Resistant
Vinegar		60	Limited
Water		60	Resistant
Xylene	100%	20	Non Resistant
Zinc chloride, aqueous		60	Limited
Zinc oxide		60	Resistant
Zinc sulfate, aqueous		60	Resistant

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uPVC PIPES

PRODUCT GUIDE

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BROOKPLAST
uPVC PIPES

uPVC PIPES TO DIN 8061/8062

Based on ISO 161/1 Metric Series

Nominal Outside Diameter (mm)	Series 2 4 bar Class 4 Nominal Wall Thickness (mm)	Series 3 6 bar Class 6 Nominal Wall Thickness (mm)	Series 4 10 bar Class 10 Nominal Wall Thickness (mm)	Series 5 16 bar Class 16 Nominal Wall Thickness (mm)
20	-	-	-	1.5
25	-	-	1.5	1.9
32	-	-	1.8	2.4
40	-	1.8	1.9	3.0
50	-	1.8	2.4	3.7
63	-	1.9	3.0	4.7
75	1.8	2.2	3.6	5.6
90	1.8	2.7	4.3	6.7
110	2.2	3.2	5.3	8.2
140	2.8	4.1	6.7	10.4
160	3.2	4.7	7.7	11.9
200	4.0	5.9	9.6	14.9
225	4.5	6.6	10.8	16.7
250	4.9	7.3	11.9	18.6
280	5.5	8.2	13.4	20.8
315	6.2	9.2	15.0	23.4
400	7.9	11.7	19.1	29.7
500	9.8	14.6	23.9	-
630	12.4	18.4	30.0	-

The above pipes are supplied in 6 metre length with Solvent weld socket, Rubber ring socket or plain end.
Pipe Colour : Dark grey
The above pressure rating is the working pressures @ 20˚C

uPVC SOIL & VENTILATING PIPES

To BS EN 1329 – 1:2000

Nominal Size DN/OD	Nominal OD (mm)	Mean Outside Diameter min (mm)	Mean Outside Diameter max (mm)	Wall Thickness min	Wall Thickness max
36 (1¼″)	36	36.2	36.5	3.0	3.5
43 (1½″)	43	42.8	43.1	3.0	3.5
56 (2″)	56	55.8	56.1	3.0	3.5
82 (3″)	82	82.0	82.3	3.0	3.5
110 (4″)	110	110.0	110.3	3.2	3.8
160 (6″)	160	160.0	160.4	3.2	3.8

The above pipes are supplied in 4 metre length with plain ends
Solvent weld socket supplied upon request
Colour : Light grey

uPVC UNDERGROUND DRAIN & SEWER PIPES

To BS EN 1401 - 1:1998
(Formerly BS 4660 & BS 5481)

Nominal Size DN/OD	Nominal OD mm	Mean Outside Diameter mm		Wall Thickness SN2, SDR 51 mm		Wall Thickness SN4, SDR 41 mm	
		min	max	max	max	max	max
110 (4″)	110	110.0	110.3	--	--	3.2	3.8
160 (6″)	160	160.0	160.4	3.2	3.8	4.0	4.6
200 (8″)	200	200.0	200.5	3.9	4.5	4.9	5.6
250 (10″)	250	250.0	250.5	4.9	5.6	6.2	7.1
315 (12″)	315	315.0	315.6	6.2	7.1	7.7	8.7
400 (16″)	400	400.0	400.7	7.9	8.9	9.8	11.0
500 (20″)	500	500.0	500.9	9.8	11.0	12.3	13.8
630 (24″)	630	630.0	631.1	12.3	13.8	15.4	17.2

SN2 = ring stiffness of 2 KN/m² SN4 = ring stiffness of 4 KN/m²

The above pipes are supplied in 6 metre length with integral push- fit Rubber ring socket
Solvent weld socket or plain end can be supplied upon request
Colour : Golden brown

uPVC PIPES FOR COLD POTABLE WATER

To BS 3505 : 1986

	Mean Outside Diameter mm		Minimum Wall Thickness mm			
Nominal Size	Minimum	Maximum	Class B 6 bar	Class C 9 bar	Class D 12 bar	Class E 15 bar
½	21.2	21.5	-	-	-	1.7
¾	26.6	26.9	-	-	-	1.9
1	33.4	33.7	-	-	-	2.2
1¼	42.1	42.4	-	-	2.2	2.7
1½	48.1	48.4	-	-	2.5	3.1
2	60.2	60.5	-	2.5	3.1	3.9
3	88.7	89.1	2.9	3.5	4.6	5.7
4	114.1	114.5	3.4	4.5	6.0	7.3
6	168.0	168.5	4.5	6.6	8.8	10.8
8	218.8	219.4	5.3	7.8	10.3	12.6

The above pipes are supplied in 6 metre lengths with integral solvent weld socket or plain end
Sizes are also available with Rubber ring sockets in Class C, D and E
Colour : Dark grey

uPVC PIPES FOR INDUSTRIAL USES

To BS 3506 : 1969

	Mean Outside Diameter mm		Minimum Wall Thickness mm			
Nominal Size	Minimum mm	Maximum mm	Class O Non Pressure	Class C 9 bar	Class D 12 bar	Class E 15 bar
½	21.2	21.5	-	-	-	1.7
¾	26.6	26.9	-	-	-	1.9
1	33.4	33.7	-	-	-	2.2
1¼	42.1	42.4	-	-	2.2	2.7
1½	48.1	48.4	1.8	-	2.5	3.1
2	60.2	60.5	1.8	-	3.1	3.9
2½	75.0	75.3	1.8	-	3.9	4.8
3	88.7	89.1	1.8	3.5	4.6	5.7
4	114.1	114.5	2.3	4.5	6.0	7.3
6	168.0	168.5	3.1	6.6	8.8	10.8
8	218.8	219.4	3.1	7.8	10.3	12.6
10	272.6	273.4	3.1	9.7	12.8	15.7
12	323.4	324.3	3.1	11.5	15.2	18.7
16	405.9	406.9	4.1	14.5	19.0	23.4
20	507.5	508.5	5.1	18.1	---	---
24	609.1	610.1	6.1	21.7	---	---

The above pipes are supplied in 6 metre lengths with integral solvent weld socket or plain end
Sizes are also available with Rubber ring sockets in Class C, D and E
Colour : Dark grey

uPVC DUCTS FOR ELECTRICAL/TELEPHONE CABLES

As per BPO/ETISALAT Specifications			
DUCT No.	Mean Outside Diameter mm		Wall Thickness mm
	Minimum	Maximum	Minimum
56	53.8	54.0	1.55
54D	96.3	96.7	3.25

The above pipes are supplied in 6 metre length
Colour : Black

uPVC SERVICE DUCTS

Based on ISO/R 161 Recommended Diameters

Metric Units

Nominal Size mm	Outside Diameter		Wall Thickness		
	Minimum mm	Maximum mm	Light Duty mm	Medium Duty mm	Heavy Duty mm
63	63.0	63.2	--	1.9	3.0
75	75.0	75.3	1.8	2.2	3.6
90	90.0	90.3	1.8	2.7	4.3
110	110.0	110.3	2.2	3.2	6.0
160	160.0	160.4	3.2	4.7	7.1
200	200.0	200.4	4.0	5.9	8.2

Imperial Units

Nominal Size mm	Outside Diameter		Wall Thickness		
	Minimum mm	Maximum mm	Light Duty mm	Medium Duty mm	Heavy Duty mm
2	60.2	60.5	1.8	2.5	3.1
2½	75.0	75.3	1.8	2.9	3.9
3	88.7	89.1	1.8	2.9	4.6
4	114.1	114.5	2.3	3.4	6.0
6	168.0	168.5	3.1	4.5	6.6
8	218.8	219.4	3.1	5.3	7.8

The above pipes are supplied in 6 metre length with integral solvent weld socket or plain end
Colour : Dark grey

Table 2 -- nominal outside diameters d_n and nominal wall thicknesses e_n (based on an overall service (design) coefficient of C = 2.0)

Nominal outside diameter d_n	Pipes series S SDR series and nominal pressure PN equivalents		
	S 20 SDR 41 PN 6.3	S 12.5 SDR 26 PN 10	S 8 SDR 17 PN 16
	Nominal wall thickness, e_n		
110	2.7	4.2	6.6
125	3.1	4.8	7.4
140	3.5	5.4	8.3
160	4	6.2	9.5
180	4.4	6.9	10.7
200	4.9	7.7	11.9
225	5.5	8.6	13.4
250	6.2	9.6	14.8
280	6.9	10.7	16.6
315	7.7	12.1	18.7
355	8.7	13.6	21.1
400	9.8	15.3	23.7
450	11	17.2	26.7
500	12.3	19.1	29.7
560	13.7	21.4	
630	15.4	24.1	
710	17.4	27.2	
800	19.6	30.6	
900	22		
1 000	24.5		

NOTE - To apply an overall design (service) coefficient C of 2.5 for pipes with nominal diameters in this table, the next-higher nominal pressure PN shall be selected, e.g. an S 10 series pipe rated at PN 12.5 will be selected for PN 10 applications when a C of 2.5 is required

BS EN 1452

Table 2 -- nominal outside diameters d_n and nominal wall thicknesses e_n (based on an overall service (design) coefficient of C = 2.0)

Nominal outside diameter d_n	Pipes series S SDR series and nominal pressure PN equivalents		
	S 20 SDR 41 PN 6.3	S 12.5 SDR 26 PN 10	S 8 SDR 17 PN 16
	Nominal wall thickness, e_n		
110	2.7	4.2	6.6
125	3.1	4.8	7.4
140	3.5	5.4	8.3
160	4	6.2	9.5
180	4.4	6.9	10.7
200	4.9	7.7	11.9
225	5.5	8.6	13.4
250	6.2	9.6	14.8
280	6.9	10.7	16.6
315	7.7	12.1	18.7
355	8.7	13.6	21.1
400	9.8	15.3	23.7
450	11	17.2	26.7
500	12.3	19.1	29.7
560	13.7	21.4	
630	15.4	24.1	
710	17.4	27.2	
800	19.6	30.6	
900	22		
1 000	24.5		

NOTE - To apply an overall design (service) coefficient C of 2.5 for pipes with nominal diameters in this table, the next-higher nominal pressure PN shall be selected, e.g. an S 10 series pipe rated at PN 12.5 will be selected for PN 10 applications when a C of 2.5 is required

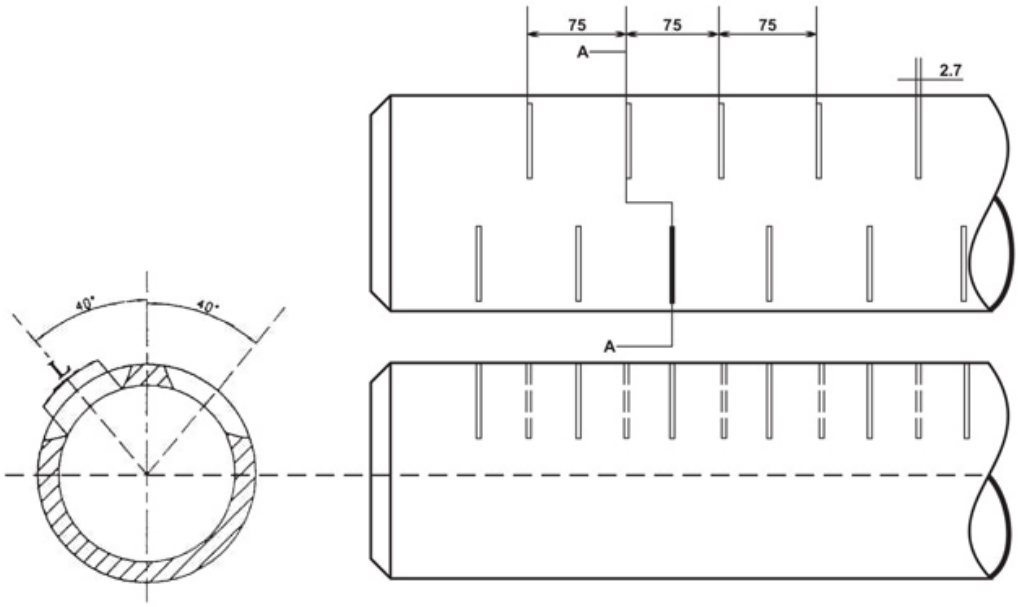
uPVC PRESSURE PIPES

In accordance to **ANSI/ASTMD** 1785 - 89 Schedule 40 - 80

Normal Size	0D mm		Schedule 40 Wall thickness		Schedule 80 Wall thickness	
inches	min mm	max mm	min mm	max mm	min mm	max mm
1/2	21.24	21.44	2.77	3.28	3.73	4.24
3/4	26.57	26.77	2.87	3.38	3.91	4.42
1	33.27	33.53	3.38	3.89	4.55	5.08
1 1/4	42.03	42.29	3.56	4.06	4.85	5.44
1 1/2	48.11	48.41	3.68	4.19	5.08	5.69
2	60.17	60.47	3.91	4.42	5.54	6.20
2 1/2	72.84	73.20	5.16	5.77	7.01	7.85
3	88.70	89.10	5.49	6.15	7.62	8.53
3 1/2	101.40	101.80	5.74	6.43	8.08	9.04
4	114.07	114.50	6.02	6.73	8.56	9.58
5	141.05	141.55	6.55	7.34	9.52	10.67
6	168.00	168.56	7.11	7.98	10.97	12.29
8	218.70	219.46	8.18	9.17	12.7	14.22
10	272.67	273.43	9.27	10.39	15.06	16.87
12	323.47	324.23	10.31	11.56	17.45	19.52

PERFORATED PIPES

Dimensions and Slot Arrangements



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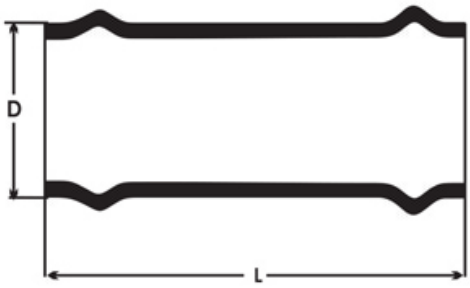
All dimensions are in mm

BROOKPLAST Perforated Pipes are produced according to the parameters given below

Nominal Dia mm	Slot Length L mm	Slot Width mm	Pitch mm	Slot Area mm²/m
110	33	2.7	75	2406
160	48	2.7	75	3499
200	59	2.7	75	4301
225	67	2.7	75	4884
250	74	2.7	75	5395
280	83	2.7	75	6051
315	94	2.7	75	6853
400	119	2.7	75	8675
500	158	2.7	75	11518

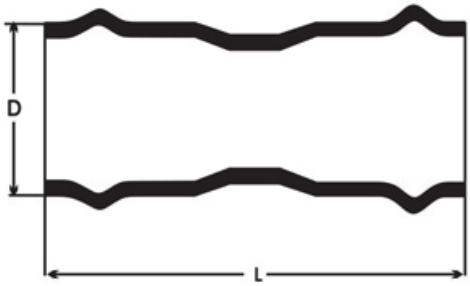
FABRICATED FITTINGS

BROOKPLAST uPVC Couplings



Diameter mm	Series 3 & 4 Class 6 & 10 L (mm)	Series 5 Class 16 L (mm)
63	227	240
75	240	255
90	255	273
110	277	298
140	306	333
160	328	356
200	357	390
225	390	434
250	406	455
280	446	502
315	478	542
400	546	625

Repair Coupling for R/R Socket

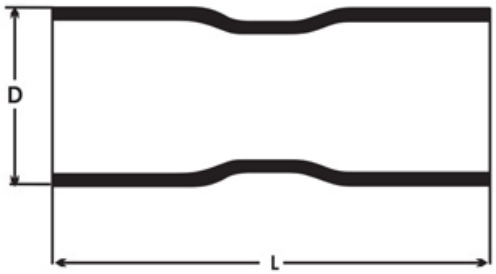


Diameter mm	Series 3 & 4 Class 6 & 10 L (mm)	Series 5 Class 16 L (mm)
63	240	245
75	240	255
90	265	285
110	280	305
140	306	333
160	328	359
200	357	390
225	390	434
250	406	455
280	446	502
315	478	542
400	546	625

Register Coupling for RR Socket

For other sizes & other specifications, special fabrication is done upon request.

BROOKPLAST uPVC Couplings

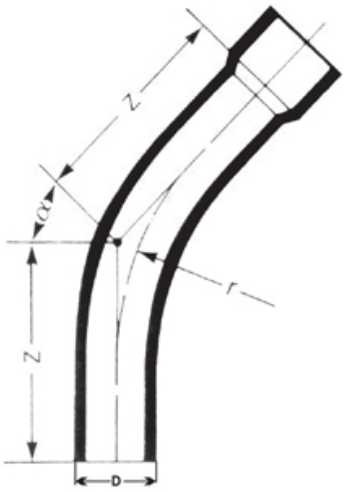


Diameter	Series 3 & 4 Class 6 & 10	Series 5 Class 16
D mm	L (mm)	L (mm)
63	210	215
75	210	215
90	210	215
110	210	215
140	270	280
160	310	320
200	330	350
225	370	420
250	430	480
280	460	510
315	520	580
400	620	690

Coupling for Solvent Weld Socket

For other sizes & other specifications, special fabrication is done upon request.

uPVC Pipes Long Radius Bend (Class 6, 10 & 16 bar)



D mm	r mm	11.25° Z mm	22.5° Z mm	30° Z mm	45° Z mm	90° Z mm
63	221	185	190	195	210	350
75	263	205	210	215	230	370
90	315	245	250	255	270	445
110	385	295	300	310	315	515
140	490	375	380	385	405	660
160	560	375	380	390	430	705
200	700	500	510	520	540	875
225	788	630	650	665	700	1120
250	825	630	650	665	700	1120
280	980	835	840	855	885	1410
315	1103	890	940	955	995	1590
400	1400	920	1180	1200	1250	1700

For other sizes & other specifications, special fabrication is done upon request.

METHOD OF JOINTING PIPES

Brookplast pipes are supplied with a champer of 15˚ on the spigot end and are connected by either solvent socket joints or wall integral socket joint and a sealing ring.

Procedures on How to Fix Rubber Ring Sockets Pipes

1. Clean the interior area of the socket and the outside area of the spigot thoroughly.
2. Determine the depth of insertion by marking the insertion end of the pipe by a pencil.
3. Form a loop and set the rubber sealing ring in its groove.
4. Lubricate only the chamfered end of the pipe.
5. Ensure the alignment of the pipes in both horizontal and vertical plane and then push insertion end of the pipe into the socket until it bottoms up to the marking.

- 1 -

- 2 -

- 3 -

- 4 -

- 5 -

Procedures on How to Fix Solvent Socket Pipes

1. Clean the interior area of the socket and the outside area of the spigot thoroughly from dirt and dust.
2. Apply the PVC cleaner to the solvent cementing areas thoroughly.
3. Mark with pencil the insertion depth.
4. Apply the solvent cement to both spigot and socket side and ensure the complete area is covered with required amount.
5. Insert the spigot side into the socket quickly and turn it ¼ of the circumference to spread the adhesive evenly.
6. Hold the joint in place for few minutes.
7. Wipe excess adhesive with a piece of cloth.

- 1 -

- 4 -

- 2 -

- 5 -

- 3 -

- 6 & 7 -

Storage and Handling

1. Palletize the pipes in layers with protruding sockets placed at alternate ends.
2. Stack the palletized pipes to a maximum height of 3 pallets in a row.
3. Store the pipes in a well adequate place and free from sharp objects.
4. Protect the pipes from direct sunlight.
5. Do not come into contact the pipes with chemicals.

Transportation

1. Avoid impact or contact of metal slings or hooks during loading and see to it that the vehicle is free from sharp objects.
2. Properly stack the pipes in the vehicle to avoid deterioration and deformation.
3. Secure the palletized pipes with slings or ropes and ensure pipes are supported over the entire length.
4. When off loading, do not drop the pipes and drag on the ground.

UNIT CONVERSION TABLE

Length	1 mm	= 0.03937 in	1 inch	= 25.4 mm
	1 m	= 3.2808 ft	1 ft	= .3048 m
Area	1 mm^2	= 0.00155 ft^2	1 ft^2	= 645.2 sq mm
	1 m^2	= 10.76 ft^2	1 ft^2	= 0.0929 sq m
Volume	1 cm^3	= 0.06102 in^3	1 in^3	= 16.39 cu cm
	1 m^3	= 35.31 ft^3	1 ft^3	= 0.02832 cu m
	1 litre	= 1.7598 pints	1 pint	= 0.568 liter
	1 litre	= .2199 gallon	1 gallon	= 4.546 litres
Force	1 kgf	= 2.205 lbf	1 lbf	= 0.4536 kgf
	1 kN	= 224.809 lbf	1 lbf	= 0.00448 kN
Pressure	1 bar	= 14.503774 psi		
	1 atm	= 14.6959 lbf/in^2		
	1 kN/m^2 (1 kPa)	= 14.5038 lbf/in^2		
	1 psi	= 6.8947 kN/m^2 (1 kPa)		
	1 mbar	= 0.02953 in Hg		
	1 kgf/cm^2	= 14.223 lbf/in^2		

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