



Rain Water Piping System





PROFILE

In 1971, PALING Industries was established to produce uPVC pipes and fittings in Malaysia and through the years has expanded its wide range of products from pipes and fittings to sanitary products like plastic cisterns and other accessories for various applications in water and building industries.

In 2001, PALING entered into a global partnership with the Etex Plastics Group, now known as Aliaxis, a world leader in plastic piping systems. With a reputation equally based on the same high principles of customer service, product excellence and technical innovation, a substantial investment program has taken place to support these common aims.

Stringent factory quality control, key to our success

Strict internal control over our products enables PALING to meet the relevant Malaysian, British, Australian, American and Japanese high standards and to be certified by SIRIM (Standard and Industrial Research Institute of Malaysia). Such certifications enable us to obtain local authorities approvals for use in the public and private projects and such rigor, help us build a reputation of excellence amongst the most demanding international contractors, for products meeting daily the highest demanding architectural and structural requirements.

It is not surprising then that the task of supplying the required pipes and fittings to mega projects such as KLCC (one of the tallest building in the world), KLIA (Kuala Lumpur International Airport) and Putrajaya (the new Administrative Center of the Federal Government of Malaysia) was best awarded to the specialist who has the resources, expertise and experience to meet the intricate and challenging specification requirement.

Wide range of innovative products, key to your success

The unmistakable reliable quality and adaptability has resulted in PALING products being widely used from classic to high-tech infrastructure projects such as water supply, construction of buildings and telecommunication, qualifying PALING in playing the significant role in national development.

PALING's product ranges from uPVC pressure pipes and fittings, soil, waste and vent (SWV) system, underground sewer system, rainwater piping system to telecom and electrical conduits. Accurate control of dimensions & performance, excellent hydraulic flow characteristics, economical and simple to install features are among the benefits of using PALING products.

It's no wonder the versatile and comprehensive ranges of PALING products receive recognition among authorities and contractors who are discerning in their choice of piping system.



OUR SERVICES

Paling Industries has for more than 30 years been directly involved in the manufacture and supply of uPVC pipes and fittings for pressure and non-pressure applications as well as plastic sanitary products in the building and construction industries.

Technical and Commercial Assistance for every technical advice on building site

To date, thousands of kilometers of PALING piping are in service in water mains, soil, waste and vent (SWV) system, underground sewage scheme, as well as fibre optic cable network. In line with the company's commitment to product quality, PALING Industries has been continuously engaged in enhancing its material formulation, processing equipment and tools, and testing facilities in order to improve the performance and reliability of its products.

Our technical and sales teams assure an active presence at site and dedicate their time to acquaint clients with our product range. Our technical department answers every special demand and proposes solutions to clients' requirement.

For a quick supply to your building site delivery within 72 hours

PALING supplies more than 1200 items through an extensive network of specialized distributors equipped with modern and efficient logistic, ensuring delivery, throughout major towns in peninsular Malaysia within 72 hours.*

** Subject to Terms and Conditions.*

CUSTOM-MADE PRODUCT SERVICES

For all your specific needs on parts and fittings, we provide custom-made products to meet your specification.

To meet your specification, our team of engineers studies your special request in order to produce according to your specific needs.



TRAINING CENTER

In this competitive age where customer's satisfaction prevails, we believe in working hand in hand with our fellow installers to ensure continuous product reliability and excellent workmanship to secure a niche in the market. In Paling, despite offering our customers premium quality products, we are also here to share our years of experience in this industry. Well equipped with technical expertise that has mature jobsite experience, our training centre offers programs that impart invaluable knowledge and introduces practical skills of good work practices to optimize the quality of any installation. In addition, we share insights of standards and regulations to keep our partners in the industry abreast of the latest development.

Our Concept

- To provide comprehensive knowledge
- To upgrade skills
- To improve qualifications and competencies

Our Target

PALING is to ensure that the applicant demonstrates his or her ability to properly prepare and assemble plastic plumbing materials used in plumbing systems.

Subjects

- Plumbing
- Sewerages
- Water Reticulation
- Sanitary



The quality of the solvent cemented joint determines the effectiveness of the plastic pipe system as a whole. For this reason, we offer data sheets, booklets, an installation video, installation training and certification seminars as complete educational packages to those who take good joining techniques as seriously as we do.

PLEASE CONTACT OUR SALES TEAM

Tel : 603 - 6189 8333 (General)
603 - 6189 6389 (Sales)
Fax : 603 - 6188 3810
Email : Domestic
sales@paling.com.my
Export
export@paling.com.my



OFFICIAL CERTIFICATION

For years, PALING'S range of uPVC Pipes and Fittings has its quality controlled, approved and certified by SIRIM and NSF



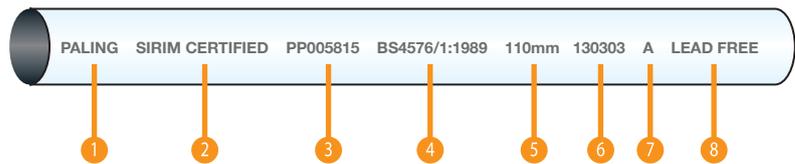
Standard and Qualification

Rainwater Pipes

- ❖ Dimensions and performance meet the requirement of standards.
- ❖ High quality of finish with smooth internal and external surface.
- ❖ Provides low coefficient of flow friction.
- ❖ Formulated to withstand weathering effect.
- ❖ Available in several stiffness class to accomodate various installations needs.

Pipe Marking

- 1: The word "PALING" or Paling Logo with the word "PALING"
- 2: The word SIRIM CERTIFIED or MS Logo
- 3: SIRIM License number
- 4: Standard conformance and year of standard
- 5: Nominal size
- 6: Manufacturing date
- 7: Manufacturing Shift code
- 8: Lead Free



Rainwater Fittings

- ❖ Wall thickness of fittings and materials are constructed and formulated to achieve strength that exceeds the performance of standards.
- ❖ High quality of finish with smooth internal and external surface.
- ❖ Provides low coefficient of flow friction.
- ❖ Formulated to withstand weathering effect.
- ❖ Comprehensive range of fittings offers multiple solutions.

PALING products are accurately designed and formulated to consistently and continuously exceed the performance aspects of standards.

With SIRIM and ISO 9001:2000 certifications, they undoubtedly provide an independent assurance to users or customers that Paling products are manufactured under an effective system of inspection, testing, supervision and control.



- Paling • The word "Paling" or Paling Logo
- 110mm • Nominal Size
- BS 4514 • Standard Conformance

Official Certification

For years, PALING's range of uPVC Rainwater Pipes & Fittings has its quality controlled, approved and certified by **SIRIM**



PIPES

MODEL	NOM. SIZE (mm)	SPECIFICATION
Light Duty	82,110	BS 4576:PT.1:1989
Medium Duty	110	BS 4514:1983
Medium Duty	160	BS 4660:1989
Medium Duty	200, 250 & 315	MS 979:PT.2:1985
Heavy Duty	110, 160 & 200	DIN 8061

FITTINGS

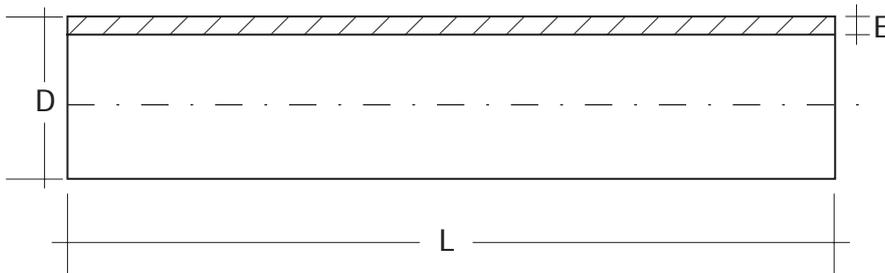
MODEL	NOM. SIZE (mm)	SPECIFICATION
Bend (Swept)	82, 110 & 160	BS 4514:1983
Boss Connector with Bracket	110 x 82 & 160 x 82	BS 4514:1983
Bush Socket Reducer	110 x 82 & 160 x 110	BS 4514:1983
Concentric Reducer	160 x 110	BS 4514:1983
45° Bend (Unswep)	82, 110 & 160	BS 4514:1983
45° Equal Single Branch (Unswep)	82, 110	BS 4514:1983
45° Unequal Single Branch (Unswep)	160 x 110	BS 4514:1983
45° Unequal Double Branch (Unswep)	160 x 110	BS 4514:1983
Equal Single Branch (Swept)	82, 110 & 160	BS 4514:1983
Equal Double Branch (Swept)	110	BS 4514:1983
Inspection Opening & Frame	110 x 82, 160 x 82	BS 4514:1983
Level Invert Reducer	110 x 82	BS 4514:1983
Straight Coupler	82, 110 & 160	BS 4514:1983
Unequal Single Branch (Swept)	110 x 82 & 160 x 110	BS 4514:1983
Unequal Double Branch (Swept)	160 x 110	BS 4514:1983

Rainwater Pipes

PALING Rainwater Piping System has been developed to meet the need of construction industry for a reliable piping system for channeling rainwater from the roof to the drains. The system is suitable for all applications and types of building, including domestic, commercial and industrial.

As the scope of BS 4576: Part 1: 1989 for Rainwater Goods & Accessories covers rainwater pipes in nominal sizes from 63mm to 110mm only, additional sizes and classes of rainwater pipes have been incorporated in the PALING Rainwater Piping System to meet different requirements of BS 4514, BS 4576, BS 4660, MS 979/2 and DIN 8061.

The Light-Duty pipe is intended for exposed installation on the buildings that do not exceed two storeys in height, such as terrace houses or low-rise shop-houses. The Medium-Duty is intended for exposed installation on building exceeding two storeys while the Heavy-Duty is designed with higher ring stiffness for use in pipework to be encased in reinforced concrete (RC) columns.



PIPE DIMENSIONS

CODE NO.	CLASS	NOM. SIZE (mm)	SPECIFICATION	PIPE END	OUTSIDE DIAMETER D (mm)	WALL THICKNESS E (mm)	TYPICAL PIPE STIFFNESS (MPa)	LENGTH L (meter)
5100 082 40	Light Duty	82	BS 4576	PE	82.4 - 82.8	1.8 - 2.3	0.003	4
5100 110 40	Light Duty	110	BS 4576	PE	110.0 - 110.4	2.2 - 2.7	0.002	4
5100 110 60	Light Duty	110	BS 4576	PE	110.0 - 110.4	2.2 - 2.7	0.002	6
1200 110 40	Medium Duty	110	BS 4514	PE	110.0 - 110.4	3.2 - 3.4	0.006	4
1200 110 60	Medium Duty	110	BS 4514	PE	110.0 - 110.4	3.2 - 3.4	0.006	6
5102 110 60 HD	Heavy Duty	110	DIN 8061	SS	110.0 - 110.3	6.0 - 6.8	0.043	6
5100 160 60 MD	Medium Duty	160	BS 4660	PE	160.0 - 160.6	4.1 - 4.3	0.004	6
5102 160 60 HD	Heavy Duty	160	DIN 8061	SS	160.0 - 160.4	8.7 - 9.7	0.043	6
5102 200 60 MD	Medium Duty	200	MS 979/2	SS	200.0 - 200.6	4.9 - 5.2	0.004	6
5102 200 60 HD	Heavy Duty	200	DIN 8061	SS	200.0 - 200.4	10.8 - 12.0	0.042	6
5102 250 60 MD	Medium Duty	250	MS 979/2	SS	250.0 - 250.7	6.1 - 7.1	0.004	6
5102 315 60 MD	Medium Duty	315	MS 979/2	SS	315.0 - 315.9	7.7 - 8.7	0.004	6

PE: Plain End

SS: Solvent Socket

Light & Medium Duty: White

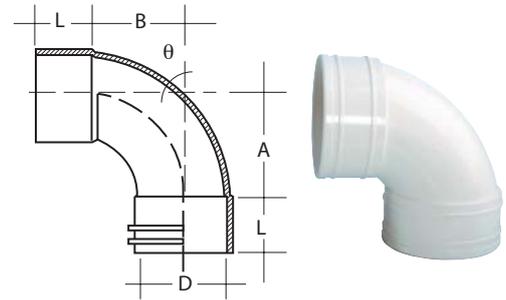
Heavy Duty: Greyish White

(110-200mm Pipes with Rubber Ring Joints are available on special order)

Bend (Swept)

CODE NO.	NOM. SIZE (mm)	ANGLE θ	DIMENSIONS (mm)			
			L	A	B	D
2201 082	82	87½°	43	80	76	82
2201 110	110	87½°	51	75	71	110
2201 160	160	87½°	76	129	129	160

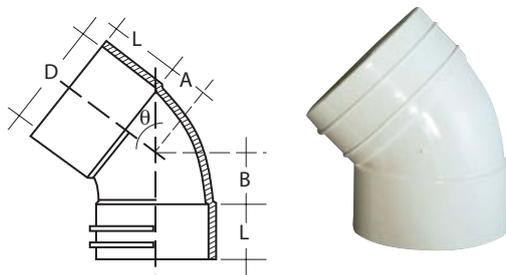
D: Nominal Dimension



Bend (Unsweet)

CODE NO.	NOM. SIZE (mm)	ANGLE θ	DIMENSIONS (mm)			
			L	A	B	D
2210 082	82	45°	43	15	15	82
2210 110	110	45°	50	20	20	110
2210 160	160	45°	76	30	30	160
*#5202 3 1642	160	45°	73	49	49	160
*#5202 3 2042	200	45°	85	65	65	200
*#5212 3 2542	250	45°	101	79	79	250
*#5212 3 3042	315	45°	116	100	100	315
2205 110	110	68°	52	60	53	110
2205 160	160	68°	80	75	72	160
2205 200	200	68°	100	97	96	200
*#5202 4 2142	200	87½°	85	124	124	200
*#5212 4 2542	250	87½°	101	154	154	250
*#5212 4 3042	315	87½°	116	192	192	315
2201 200	200	89°	94/100	120	116	200

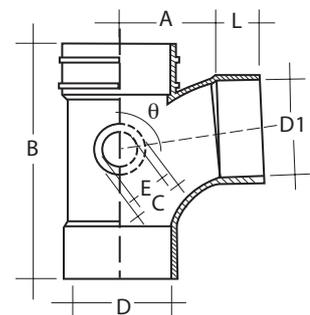
Available in Rubber Ring Joint
 * Imported fittings from Aliaxis
 D: Nominal Dimension



Branch (Swept)

CODE NO.	NOM. SIZE (mm)	ANGLE θ	L	DIMENSIONS (mm)					
				A	B	C	E	D	D1
2211 082	82	87½°	45.0	76	206	-	43	82	82
2211 110	110	87½°	50.0	75	250	-	56	110	110
2211 160	160	87½°	77.0	155	360	83	56	160	160
+ 2211 160 110	160x110	87½°	160.3	125	372	-	56	160	110

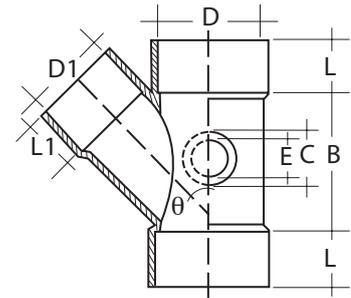
+ Reducing Branch
 D & D1: Nominal Dimensions



Branch (Unswep)

CODE NO.	NOM. SIZE (mm)	ANGLE θ	DIMENSIONS (mm)						
			L	L1	B	C	E	D	D1
2213 082	82	45°	44	44	105	-	43	82	82
2213 110	110	45°	51	51	155	83	56	110	110
2213 110 082	110x82	45°	50	50	155	83	56	110	82
2213 160 110	160x110	45°	76	50	148	83	56	160	110
*#5204 4 1642	160	45°	72	72	255	-	-	160	160
*#5214 4 3142	200x110	45°	86	62	184	-	-	200	110
*#5203 1 2132	200x160	45°	86	74	282	-	-	200	160
*#5214 4 2042	200	45°	100	85	296	-	-	200	200
*#5214 4 4042	250x160	45°	101	74	292	-	-	250	160
*#5214 4 4142	250x200	45°	101	86	346	-	-	250	200
*#5214 4 2542	250	45°	101	101	412	-	-	250	250
*#5214 4 3442	315x110	45°	125	60	360	-	-	315	110
*#5214 4 4242	315x160	45°	117	74	294	-	-	315	160
*#5214 4 4342	315x200	45°	117	86	352	-	-	315	200
*#5214 4 3042	315	45°	117	117	505	-	-	315	315

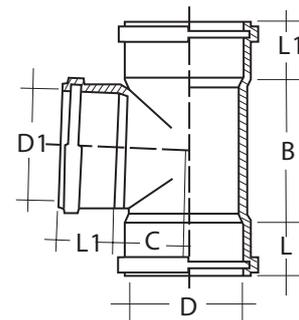
Available in Rubber Ring Joint
 * Imported fittings from Aliaxis
 D & D1: Nominal Dimensions



Tee 87°30 (Unswep)

CODE NO.	NOM. SIZE (mm)	DIMENSIONS (mm)						
		L	L1	B	C	D	D1	
5204 6 0142	200x110	86	-	243	-	200	110	
5204 6 0642	200x160	86	62	243	108	200	160	
5214 5 2042	200	86	86	243	120	200	200	
5214 6 1142	250x110	105	56	195	145	250	110	
5214 6 1642	250x160	107	126	200	134	250	160	
5214 6 2042	250x200	113	120	243	136	250	200	
5214 5 2542	250	101	101	317	152	250	250	
5214 6 4142	315x110	125	60	362	195	315	110	
5214 6 4242	315x160	120	138	207	164	315	160	
5214 6 4442	315x200	118	140	281	170	315	200	
5214 6 4642	315x250	125	105	351	265	315	250	
5214 5 3042	315	117	117	396	185	315	315	

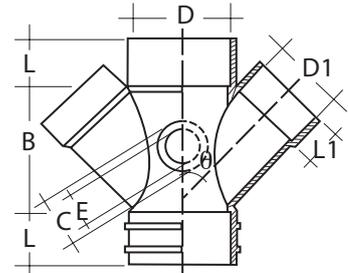
Available in Rubber Ring Joint
 Imported fittings from Aliaxis
 D & D1: Nominal Dimensions



Double Branch (Unswept)

CODE NO.	NOM. SIZE (mm)	ANGLE θ	DIMENSIONS (mm)						
			L	L1	B	C	E	D	D1
*#5203 6 1142	110	45°	57	60	171	-	-	110	110
*#5203 6 1642	160	45°	85	88	255	-	-	160	160
2218 160 110	160x110	45°	78.2	52.8	315	83	56	160	110

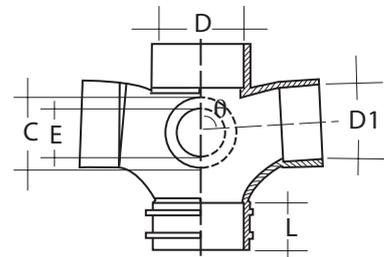
Available in Rubber Ring Joint
 * Imported fittings from Aliaxis
 D & D1: Nominal Dimensions



Double Branch (Swept)

CODE NO.	NOM. SIZE (mm)	ANGLE θ	DIMENSIONS (mm)				
			L	C	E	D	D1
2216 110	110	87½°	50.5	83	56	110	110

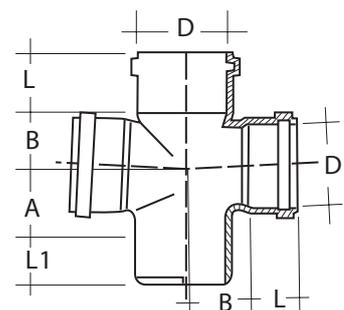
D & D1: Nominal Dimensions



Cross Tee (Unswept)

CODE NO.	NOM. SIZE (mm)	ANGLE θ	DIMENSIONS (mm)				
			L	L1	A	B	D
5203 8 1142	110	87½°	70	80	62	70	110

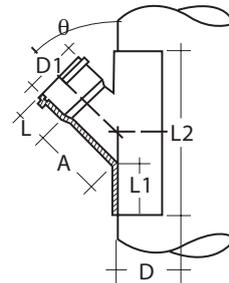
Available in Rubber Ring Joint
 Imported fittings from Aliaxis
 D: Nominal Dimensions



45° Saddle (Unswept)

CODE NO.	NOM. SIZE (mm)	ANGLE		DIMENSIONS (mm)					
		θ	L	L1	L2	A	D	D1	
5204 3 8442	200x160	45°	73	85	390	165	200	160	
5204 3 8842	250x160	45°	73	92	400	165	250	160	
5204 3 9442	315x160	45°	73	110	432	165	315	160	

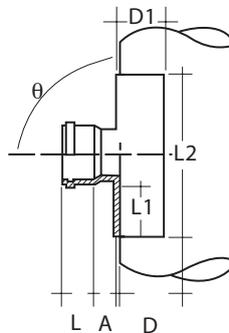
Available in Rubber Ring Joint
Imported fittings from Aliaxis
D & D1: Nominal Dimensions



90° Saddle (Unswept)

CODE NO.	NOM. SIZE (mm)	ANGLE		DIMENSIONS (mm)					
		θ	L	L1	L2	A	D	D1	
5204 3 4342	200x160	90°	58.5	77	322	34	200	160	
5214 2 4242	250x160	90°	58.5	77	322	34	250	160	
5214 2 5242	315x160	90°	58.5	77	322	34	315	160	

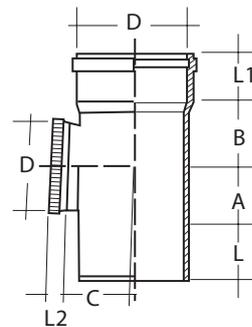
Available in Rubber Ring Joint
Imported fittings from Aliaxis
D & D1: Nominal Dimensions



Access Pipe

CODE NO.	NOM. SIZE (mm)	DIMENSIONS (mm)							
		L	L1	L2	A	B	C	D	
5218 2 1142	110	60	55	36	59	69	69	110	
5218 2 1642	160	85	72	24	83	99	99	160	
5218 2 2042	200	100	86	28	105	119	119	200	
5214 0 2592	250	135	101	70	120	152	152	250	
5214 0 3092	315	146	114	90	166	185	185	315	

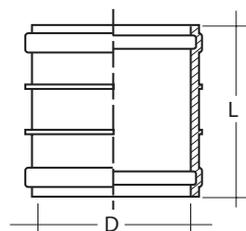
Available in Rubber Ring Joint
Imported fittings from Aliaxis
D : Nominal Dimensions



Repair/Slip Coupler

CODE NO.	NOM. SIZE (mm)	DIMENSIONS (mm)	
		L	D
5206 1 1142	110	122	110
5206 1 1642	160	154	160
5206 1 2042	200	217	200
5206 1 2552	250	254	250
5206 1 3052	315	297	315

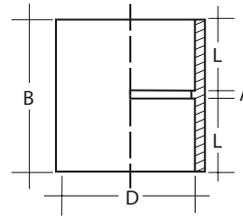
Available in Rubber Ring Joint
Imported fittings from Aliaxis
D & D1: Nominal Dimensions



Straight Coupler

CODE NO.	NOM. SIZE (mm)	DIMENSIONS (mm)			
		L	A	B	D
2225 082	82	42	3	96	82
2225 110	110	51	3.2	112	110
2225 160	160	77	4.3	161	160
*#5206 3 2042	200	106	5	217	200
*#5206 3 2552	250	123	8	254	250
*#5206 3 3052	315	144	9	297	315

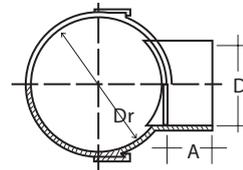
#Available in Rubber Ring Joint
 *Imported fittings from Aliaxis
 D: Nominal Dimensions



Boss Connector with Bracket

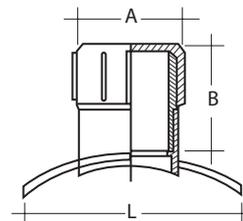
CODE NO.	NOM. SIZE (mm)	DIMENSIONS (mm)		
		Dr	D	A
2243 110 082	110x82	110	82	45.0
2243 160 082	160x82	160	82	45.0

Dr- Nominal diameter pipe
 D - Diameter of inlet pipe
 A - Socket depth



Inspection Opening & Frame

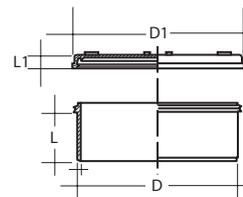
CODE NO.	NOM. SIZE (mm)	DIMENSIONS (mm)		
		L	A	B
2238 110 082	110x82	120	65	82.2
2238 160 082	160x82	175	65	82.2



Access Plug

CODE NO.	NOM. SIZE (mm)	DIMENSIONS (mm)			
		L	L1	D	D1
5206 5 1102	110	62	19	110	125
5216 5 1602	160	60	23	160	176
5216 5 2002	200	80	23	200	216
5216 5 2502	250	90	18	250	262
5216 5 3002	315	93	22	315	354

Available in Rubber Ring Joint
 Imported fittings from Aliaxis
 D & D1: Nominal Dimensions



110 to 200 mm



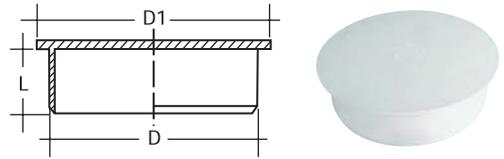
250 to 315mm



Socket Plug

CODE NO.	NOM. SIZE (mm)	L	DIMENSIONS (mm)		
			D	D1	
5206 6 1102	110	38	110	126	
5206 6 1602	160	49	160	180	
5206 6 2002	200	59	200	223	
5206 6 2502	250	90	250	282	
5206 6 3002	315	93	315	350	

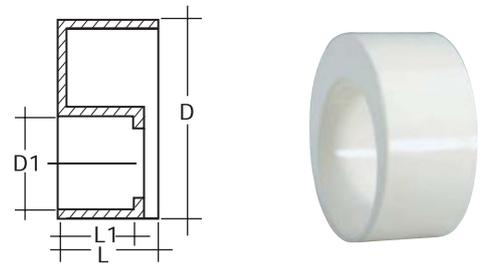
Imported fittings from Aliaxis
D & D1: Nominal Dimensions



Bush/Socket Reducer

CODE NO.	NOM. SIZE (mm)	L	DIMENSIONS (mm)			
			L1	D	D1	
2236 110 82	110x82	50	37	110	82	
2236 160 110	160x110	71	48.5	160	110	

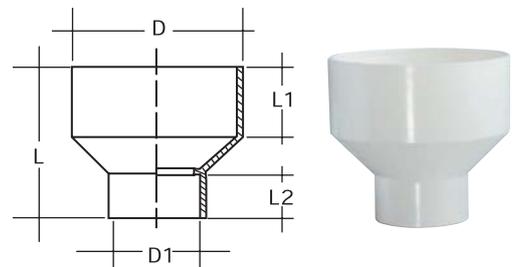
D & D1: Nominal Dimensions



Concentric Reducer

CODE NO.	NOM. SIZE (mm)	L	DIMENSIONS (mm)			
			L1	L2	D	D1
2239 160 110	160x110	146	75	47	160	110

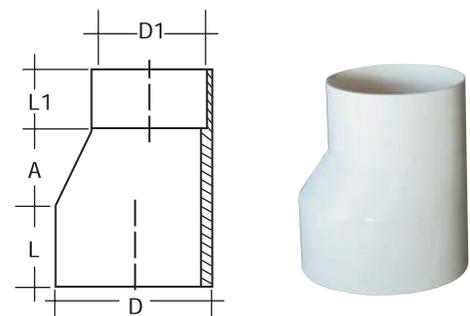
D & D1: Nominal Dimensions



Level Invert Reducer

CODE NO.	NOM. SIZE (mm)	L	DIMENSIONS (mm)			
			L1	A	D	D1
2239 110 082	110x82	43	50	35	110	82
*5205 1 1642	160x110	56	82	43	160	110
*5205 1 4042	200x160	74	100	39	160	200
*5205 1 2542	250x200	96	134	39	250	200
*5205 1 3342	315x200	86	145	85	315	200
*5205 1 3052	315x250	103	144	64	315	250

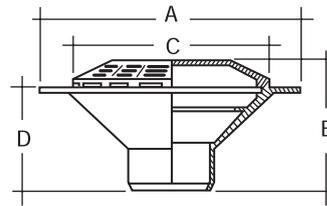
* Imported fittings from Aliaxis
D & D1: Nominal Dimensions



Flat Roof Outlet

CODE NO.	NOM. SIZE (mm)	DIMENSIONS (mm)			
		A	B	C	D
52RV 369	110	280	157	214	122
52RV 482	160	380	170	250	148

Imported fittings from Aliaxis



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The Water Delivery System

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