شركة الصناعات الوطنية ش.م.ك
NATIONAL INDUSTRIES COMPANY K.S.C.
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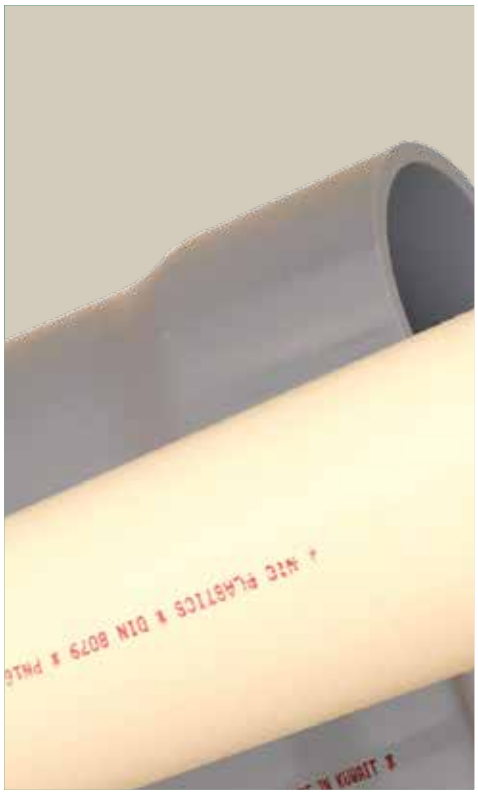
national_industries

NIC Plastics



PPR - uPVC - cPVC

NIC Catalogues

NIC Products


Interlock & Yard Tiles


Limestone


Plastics


LED Lights


Dry Mortar


Cement Cladding Bricks


Ready Mix


Ceramics


White Blocks


Benches & Flower Pots

Paints


Cladding


Concrete Pipes

HDPE


NI Panels

introduction

"NIC PLASTIC" factory was established in 1982 in response to the ever increasing demand in Kuwait and neighbouring countries. This factory is considered one of the largest in the Middle East, with an annual production capacity reaching 11,500 tones of uPVC pipes, and 500 tones fittings. NIC plastic pipes ranges from 16 to 400 mm., and are produced in accordance with international standard including: German (DIN), British (BS), American (ASTM), European Standard(EN), Saudi Arabia and Kuwait standards. NIC Plastic is capable of producing its products to other standards when required by our clients.

NIC Plastic factory produces the following Products catogaries:

NIC PPR
Water Piping System
For hot & cold water

Polypropylene Random copolymer (PPR) system «NIC PPR» is ideal for all potable water piping requirements in typical residential (single and multistory), motel/hotel, mobile home, site offices, manufactured housing, Green houses, farms, light commercial and institutional structures.

Standards for PPR / PPR-CT

A. Pipes

Item	Description of Quality	Test Standard	Specification
1	Classification		ISO 15874 - 1 Table 1
2	Appearnace		ISO 15874-2:2023, Clause 5.1
3	Marking		ISO 15874-2 Clause 10 Table 12
4	Dimensions		ISO 15874-2 Table 5 to Table 9
4a	Outside Diameter	ISO 4065	ISO 15874-2, DIN 8077 Table 2 Clause 5.2
4b	Wall Thickness	ISO 4065	DIN 8077 Table 2 Clause 5.2
5	Longitudnal reversion (Oven Test)	Method B of ISO 2505	ISO 15874, Table 11
6	Resistance to Internal Pressure	ISO 1167-1 / 1167-2	ISO 15874, Table 10
7	Impact Re3sistance (charpy method) < / = 25mm	ISO 9854-1 / ISO 9854-2	ISO 15874-2, Table 11
8	Impact Resistacne (round the clock) for >/= 32mm	ISO 3127	ISO 15874-2, Table 11
9	Melt flow rate (pipe)	ISO 1133-1	ISO 15874-2, Table 11
10	Odor and flavor of water	BS 6920-2.2	BS 6920-1 Clause 4
11	Growth of aquatic microorganisms	BS 6920-2.4	BS 6920-1 Clause 6
12	Appearance of water	BS 6920-2.3	BS 6920-1 Clause 5
13	Extraction of substances (Concern to public health)	BS 6920-2.5	BS 6920-1 Clause 7
14	Extraction of metals	BS 6920-2.5	BS 6920-1 Clause 8

B. Fittings

Item	Description of Quality	Test Standard	Specification
1	Dimensions		ISO 15874-3, Clause 6
2	Diamter of socket and spigot fusion fitting	ISO 3126	GSO 1831 Clause 7.2
3	Diameter of socket electrofusion fitting	ISO 3126	ISO 15874-3, Clause 6.2.1
4	Threads		ISO 15874-3, Clause 6.2.2
5	Marking		ISO 15874-3, Clause 11
6	Melt flow rate	ISO 1133-1	ISO 15874-3, Clause 8

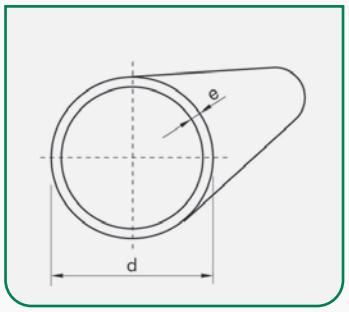
Advantages of PPR

1. Provides high resistance to chemicals, acids and other materials like lime and cement with which pipes may come into contact.
2. Poor electrical conductor, so pipes are not damaged by stray currents.
3. Excellent noise damping property, which is useful in places like hotels and hospitals.
4. Low thermal conductivity prevents heat loss when used in heating or cooling system.
5. Non toxic and complies with relevant international standards to use with drinking water.
6. Very smooth inner surface prevents pressure loss and also prevents sedimentary crusting inside pipe.
7. Light weight so easy to install and welding gives perfect leak proof joint.

Quality Standards.

Pipes as per DIN 8077, DIN 8078, ISO 15874-2
Fittings as per DIN 16962, ISO 15874-3, ISO 21003-3
Quality System as per BS EN ISO 9001 : 2015

Color - Green, Blue
or any color as per customer requirement.



Color-Green, Blue or any color as per customer requirement.

PPR Pipes

as per DIN 8077, DIN 8078, ISO 15874-2

"NIC PPR" pipe sizes and wall thickness as per DIN 8077

Pipe Size OD (mm)	PP - R			PP - RCT	
	PN 16 S 3.2 SDR 7.4	PN 20 S 2.5 SDR 6.0	PN 25 S 2.0 SDR 5.0	PN 20 S 3.2 SDR 7.4	PN 25 S 2.5 SDR 6.0
20	2.8	3.4	4.1	2.8	3.4
25	3.5	4.2	5.1	3.5	4.2
32	4.4	5.4	6.5	4.4	5.4
40	5.5	6.7	8.1	5.5	6.7
50	6.9	8.3	10.1	6.9	8.3
63	8.6	10.5	12.7	8.6	10.5
75	10.3	12.5	15.1	10.3	12.5
90	12.3	15.0	18.1	12.3	15.0
110	15.1	18.3	22.1	15.1	18.3
160	21.9	26.6	32.1	21.9	26.6

To ensure long service life of "NIC PPR" pipes, it is necessary to refer following table, which is based on DIN 8077:

Allowable working pressure bars

Temp °C	Service Life Years	PP - R			PP - RCT	
		PN 16 S 3.2 SDR 7.4	PN 20 S 2.5 SDR 6.0	PN 25 S 2.0 SDR 5.0	PN 20 S 3.2 SDR 7.4	PN 25 S 2.5 SDR 6.0
		Allowable working pressure - BAR				
20	50	20.4	25.7	32.4	24.3	30.6
	100	19.9	25.0	31.5	24.0	30.2
30	50	17.2	21.7	27.4	20.9	26.4
	100	16.8	21.1	26.6	20.6	26.0
40	50	14.5	18.3	23.1	17.9	22.6
	100	14.1	17.8	22.4	17.6	22.2
50	50	12.2	15.4	19.4	15.2	19.2
	100	11.8	14.9	18.8	15.0	18.9
60	25	10.5	13.3	16.7	13.1	16.5
	50	10.2	12.9	16.2	12.8	16.2
70	25	8.0	10.0	12.7	10.9	13.8
	50	6.7	8.5	10.7	10.7	13.5
80	10	6.4	8.1	10.2	9.3	11.7
	25	5.1	6.5	8.1	9.1	11.4
95	5	4.1	5.2	6.5	7.1	8.9
110	1	3.4	4.3	5.5	6.9	8.7

PPR Fittings - PN : 25 Bars

“NIC PPR” Fittings as per DIN 16962, EN ISO 15874-3, ISO 21003-3

Elbow 90º
20, 25, 32, 40, 50, 63, 75, 110

Equal Tee
20, 25, 32, 40, 50, 63, 75, 110

Socket
20, 25, 32, 40, 50, 63, 75, 110

End Cap
20, 25, 32, 40, 50, 63, 75

Cross Over
20, 25, 32

Tee Adapter
Female Threads
20x½”, 25x½”, 25x¾”, 32x¾”, 32x1”

Female Adapter
20x½”, 25x½”, 25x¾”, 32x1”, 40x1¼”, 50x1½”, 63x2”

Tee Reducing
25x20, 32x20, 32x25, 40x25, 40x32, 50x25, 50x32, 50x40, 63x25, 63x32, 63x50

Male Adapter
20x½”, 25x½”, 25x¾”, 32x1”, 40x1¼”, 50x1½”, 63x2”

Reduced Socket
25x20, 32x20, 32x25, 40x25, 40x32, 50x25, 50x32, 50x40, 63x25, 63x32, 63x40, 63x50 75x32, 75x40, 75x50, 75x63

Union
Plastic Threads
20, 25, 32

Union Adapter
Male Threads
20x½”, 25x½”, 25x¾”, 32x1”, 40x1¼”, 50x1½”, 63x2”

Union Adapter
Female Threads
20x½”, 25x½”, 32x1”, 40x1¼”, 50x1½”, 63x2”

Elbow Adapter
Male Theards
25x½”, 25x¾”, 32x¾”

Elbow 45°
20, 25, 32, 40, 50, 63, 110

Tee Adapter
Male Theards
25x½”, 32x¾”

Body for Gate/ Concealed Valve
25x¾”, 32x¾”, 32x1”

Slanted Valve
25, 32

Elbow Adapter
Female Threads
20x½”, 25x½”, 25x¾”, 32x¾”, 32x1”

Wall mount double elbow
32x¾"

Pipe Cutter
20 to 32

Welding Device
20 to 63

Distributor
63x32

NIC cPVC / PVC-C
Hot & Cold Water Piping

"NIC PLASTICS" cPVC systems are ideal for all potable water piping requirements in typical residential (single and multi-family), motel/hotel, mobile home, site offices, manufactured housing, light commercial, and institutional structures.

The hot water from the heater will not affect the cPVC. So, cPVC systems is ideal for both hot and cold water lines. Generally, it is not necessary to insulate cPVC pipes to prevent heat loss from hot water piping, due to very low coefficient of thermal conductivity of cPVC compared to metallic materials.

cPVC can easily withstand the ultraviolet exposure commonly experienced during the construction phase of a project. If cPVC is used in above-ground, outdoor applications, protection from ultraviolet attack can be achieved by shielding or by painting the system with an exterior-grade latex paint.

When using cPVC with joints under slab, YOU MUST PRESSURE TEST THE SYSTEM BEFORE POURING THE SLAB.

Also, it is wise to use 1" foam insulation pipe sleeve at changes in direction, where the pipe comes out of the slab, and at construction joints. The pipe should be evenly supported in smooth bottom trenches. The backfill should be free of rocks and debris.

In areas where there is a likelihood that stresses or impact abuse will occur, cPVC fittings with Bronze nickel plated threads are recommended. Such application examples are bath tub fillers, showerheads, and outside sillcocks. However, for closets, lavatories, and sinks … cPVC fittings with plastic threads can also be used. Use of Teflon® tape is recommended over threads of cPVC fittings.

Properties of cPVC Pipes

• Vicat Softening Temperature @ 1 Kg. Load	>119ºC
• Vicat Softening Temperature @ 5 Kg. Load	>110ºC
• Tensile strength @ 20 ºC	500 Kg/cm^2 (minimum)
• Specific Gravity	1.55 gram/cm^3
• Water Absorption	less than 4 mg/cm^2

Benefits

1. cPVC is suitable for hot water coming from water heater and is also suitable for cold potable water.
2. cPVC is extremely quiet due to the polymeric structure of the product. Also, noise associated with water hammer is approximately 1/3 the intensity of copper or steel. cPVC systems are virtually silent.
3. cPVC is safe for drinking water. cPVC is also resistant to chemicals used in disinfecting potable water, ensuring long life of pipe.
4. cPVC does not corrode or accumulate material deposits. Due to smooth surface friction loss is very low.
5. Unlike PP/PE and other plastics, cPVC will not burn without a significant external flame source. Once a flame source is removed, cPVC will not sustain combustion.
6. cPVC is easy to cut with tubing cutter, a power saw, handsaw or a ratchet cutter. cPVC pipes and fittings are joined easily with help of solvent cement, without need of special heating or fusion equipments required with PP or PE.

cPVC Pressure Pipes for Hot & Cold Water

1. DIN 8079 / DIN 8080, ISO 15877 & KS 881

Nominal Size mm	Outside Diameter mm		Wall Thickness mm		
			Series 6.3	Series 5	Series 4
	Min.	Max	PN 16	PN 20	PN 25
20	20.0	20.2	1.5	1.9	2.3
25	25.0	25.2	1.9	2.3	2.8
32	32.0	32.2	2.4	2.9	3.6
40	40.0	40.2	3.0	3.7	4.5
50	50.0	50.2	3.7	4.6	5.6
63	63.0	63.2	4.7	5.8	7.1
75	75.0	75.3	5.6	6.8	8.4
90	90.0	90.3	6.7	8.2	10.1
110	110.0	110.3	8.1	10.0	12.3
160	160.0	160.4	11.8	14.6	17.9

Length : 4 Meters Color : Light Yellow Socket : Nil

Note : Non-standard color, length and sizes can be manufactured.

2. ASTM F 441

Nominal Size Inch	Outside Diameter mm		Wall Thickness mm			
			Schedule 40		Schedule 80	
	Min.	Max	Min.	Max	Min.	Max
½”	21.24	21.44	2.77	3.28	3.73	4.24
¾”	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
1¼”	42.03	42.29	3.56	4.06	4.85	5.44
1½”	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

Length : 4 Meters Color : Grey Socket : Nil

Note : Non-standard color, length and sizes can be manufactured.

It is important to select appropriate pipe series according to temperature and working pressure. Please use following table with details taken from DIN 8079.

Temperature ºC	Years of Service	Allowable working pressure bar		
		Series 6.3 PN 16	Series 5 PN 20	Series 4 PN 25
20	50	16.0	20.0	25.0
	100	15.5	19.5	24.5
40	50	11.3	14.2	17.9
	100	10.9	13.8	17.3
60	25	7.3	9.2	11.6
	50	7.0	8.8	11.4
80	5	4.2	5.2	6.6
	10	3.9	4.9	6.2
95	1	2.3	2.9	3.6
	2	2.1	2.7	3.4

cPVC Pressure Fittings for Hot & Cold Water

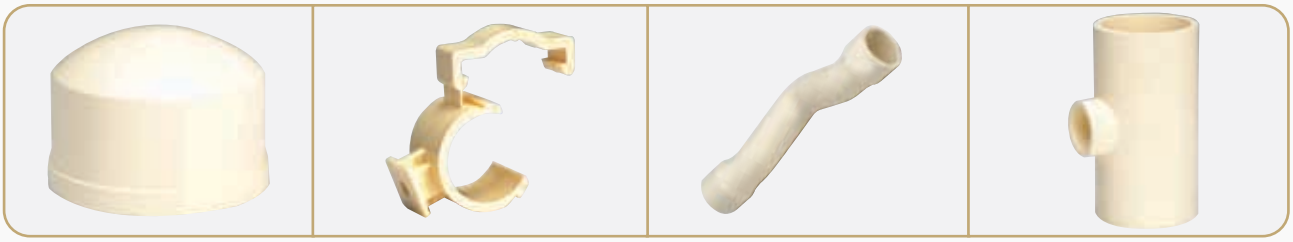
DIN 8079 / DIN 8080, ISO 15877-3

Coupler
20, 25, 32, 40, 50, 63
75, 90, 110

Elbow 90°
20, 25, 32, 40, 50, 63
75, 90, 110

Elbow 45°
20, 25, 32, 40, 50, 63
75, 90, 110

Tee
20, 25, 32, 40, 50, 63
75, 90, 110

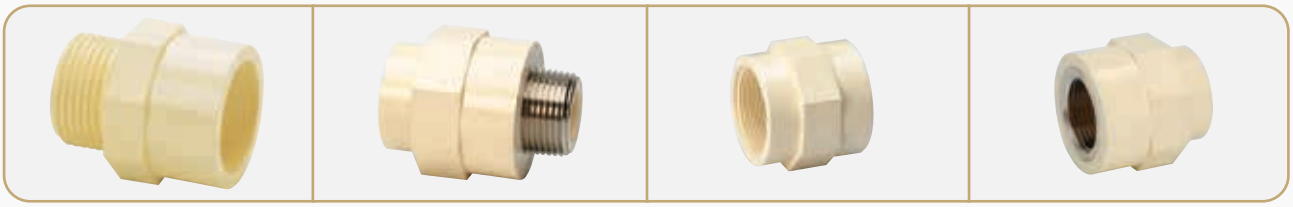


End Cap
20, 25, 32, 40, 50, 63

Saddle Clip
20, 25, 32

Cross Over
25

Reduced Tee
63x20, 63x25, 63x32,
63x40, 63x50



Male Adapter
Plastic threads
20x½", 25x¾"
32x1", 40x1¼"
50x1½", 63x2"

Male Adapter
Ni Plated Bronze Threads
25x¾", 32x1", 40x1",
40x1¼", 50x1¼", 50x1½"
63x1½", 63x2"

Female Adapter
Plastic threads
40x1¼", 50x1½",
63x2"

Female Adapter
Ni Plated Bronze Threads
20x½", 25x½", 25x¾",
32x¾", 32x1", 40x1",
40x1¼", 50x1¼", 50x1½",
63x1½", 63x2"

Threaded Elbow 90°
Ni Plated Bronze Threads
20x½", 25x½",
25x¾", 32x¾", 32x1"

Threaded Tee
Ni Plated Bronze Threads
20x½", 25x½",
25x¾", 32x¾", 32x1"

Reducer Bush
25x20, 32x20, 32x25
40x25, 40x32, 50x32
50x40, 63x32, 63x50
75x63, 90x75, 110x90

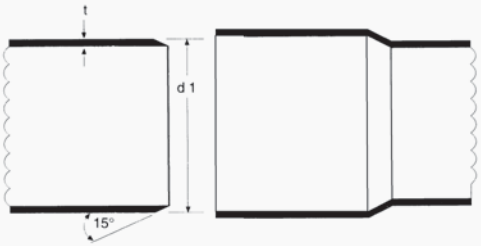
Threaded Reducer Bush
25x½", 32x½",
32x¾", 40x¾", 40x1"
50x1", 50x1¼", 63x1½"

NIC uPVC / PVC-U
Water Piping System

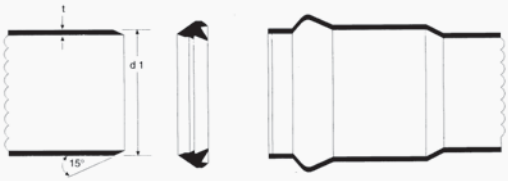
"NIC PLASTICS" uPVC systems are ideal for all potable water piping requirements in typical residential (single and multistory), motel/hotel, mobile home, site offices, manufactured housing, light commercial and institutional structures. "NIC PLASTICS" uPVC pressure piping system is also ideal for irrigation water supply system and fire fighting water supply system.

uPVC pressure piping system is used extensively underground and inside building. It can also be used in outdoor, above ground installation provided, such pipes and fittings are protected from exposure to direct sunlight.

"NIC PLASTICS" uPVC piping system do not rust, scale or corrode. uPVC piping system are not chemically reactive with the drinking water they convey. Consequently, uPVC piping systems do not adversely affect water quality or taste. In general, uPVC pipes have been tested and certified in accordance with drinking water standards, for more than 35 years, around the world.



Solvent joint socket
Diameter 20mm to 400mm



Rubber joint socket
(Anger Ring – System 3S)
Diameter 75mm to 400xmm

Properties of uPVC Pipes

Vicat Softening Temperature @ 1 Kg. Load	>85ºC
Vicat Softening Temperature @ 5 Kg. Load	>80ºC
Tensile strength @ 20ºC	500 Kg/cm^2 (minimum)
Specific Gravity	1.45 gram/cm^3
Water Absorption	less than 4 mg/cm^2

uPVC Pressure Pipes for Drinking / Irrigation Water

1. DIN 8061 / DIN 8062

Nominal Size mm	Outside Diameter mm		Wall Thickness mm			
			Series 25	Series 16.7	Series 10	Series 6.3
	Min.	Max	4 Kg/cm^2	6 Kg/cm^2	10 Kg/cm^2	16 Kg/cm^2
20	20.0	20.2				1.5
25	25.0	25.2			1.5	1.9
32	32.0	32.2			1.8	2.4
40	40.0	40.2			1.9	3.0
50	50.0	50.2		1.5	2.4	3.7
63	63.0	63.2		1.9	3.0	4.7
75	75.0	75.3	1.5	2.2	3.6	5.6
90	90.0	90.3	1.8	2.7	4.3	6.7
110	110.0	110.3	2.2	3.2	5.3	8.1
160	160.0	160.4	3.2	4.7	7.7	11.8
200	200.0	200.4	3.9	5.9	9.6	14.7
250	250.0	250.5	4.9	7.3	11.9	18.4
315	315.0	315.6	6.2	9.2	15.0	23.2
400	400.0	400.7	7.9	11.7	19.1	29.4

Length : 4, 5.8 & 6 Meters Colour : Grey Socket : Solvent & Rubber (3S)

To ensure long service life of uPVC Pressure pipes, it is necessary to select series of pipe based on temperature. Following table is prepared from details given in standard DIN 8062:

Temperature °C	Years of Service	Allowable working pressure - bar			
		Series 25 4 Kg/cm^2	Series 16.7 6 Kg/cm^2	Series 10 10 Kg/cm^2	Series 6.3 16 Kg/cm^2
20	50	4.0	6.0	10.0	16.0
	100	3.9	5.8	9.7	15.6
30	25	3.3	4.9	8.2	13.2
	50	3.2	4.8	8.0	12.7
40	25	2.5	3.7	6.2	9.9
	50	2.4	3.6	6.0	9.6
50	10	1.8	2.7	4.6	7.3
	25	1.7	2.6	4.3	6.9
60	10	1.1	1.7	2.8	4.5
	25	1.1	1.6	2.6	4.2

uPVC Pressure Pipes for Drinking / Irrigation Water

BS EN ISO 1452

Nominal Size mm	Outside Diameter mm		Wall Thickness mm – Design Coefficient C=2.5			
			Series 16	Series 10	Series 6.3	Series 5
	Min.	Max	6 Kg/cm^2	10 Kg/cm^2	16 Kg/cm^2	20 Kg/cm^2
20	20.0	20.2			1.5	1.9
25	25.0	25.2		1.5	1.9	2.3
32	32.0	32.2		1.8	2.4	2.9
40	40.0	40.2	1.5	1.9	3.0	3.7
50	50.0	50.2	1.6	2.4	3.7	4.6
63	63.0	63.2	2.0	3.0	4.7	5.8
75	75.0	75.3	2.3	3.6	5.6	6.8
90	90.0	90.3	2.8	4.3	6.7	8.2

Nominal Size mm	Outside Diameter mm		Wall Thickness mm – Design Coefficient C=2.0			
			Series 20	Series 12.5	Series 8	Series 6.3
	Min.	Max	6 Kg/cm^2	10 Kg/cm^2	16 Kg/cm^2	20 Kg/cm^2
110	110.0	110.3	2.7	4.2	6.6	8.1
160	160.0	160.4	4.0	6.2	9.5	11.8
200	200.0	200.4	4.9	7.7	11.9	14.7
250	250.0	250.5	6.2	9.6	14.8	18.4
315	315.0	315.6	7.7	12.1	18.7	23.2
400	400.0	400.7	9.8	15.3	23.7	29.4

ASTM D 1785

Nominal Size Inch	Outside Diameter mm		Wall Thickness mm			
			Schedule 40		Schedule 80	
	Min.	Max	Min.	Max	Min.	Max
½	21.24	21.44	2.77	3.28	3.73	4.24
¾”	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 ¼”	42.03	42.29	3.56	4.06	4.85	5.44
1 ½”	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
4”	114.07	114.53	6.02	6.73	8.56	9.58

Length : 4, 5.8 & 6 Meters Colour : White / Grey Socket : Solvent / Rubber

uPVC Pressure Fittings for Drinking / Irrigation Water

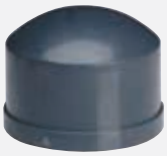
DIN 8063, ISO 1452

Coupler
20, 25, 32, 40, 50, 63
75, 90, 110

Elbow 90º
20, 25, 32, 40, 50, 63
75, 90, 110

Elbow 45º
20, 25, 32, 40, 50, 63
75, 90, 110

Tee
20, 25, 32, 40, 50, 63
75, 90, 110



End Cap
20, 25, 32, 40, 50, 63

Saddle Clip
20, 25, 32

Over Cross Over
25

Reduced Tee
63x20, 63x25, 63x32,
63x40, 63x50

Male Adapter
Plastic threads
20x½", 25x¾", 32x1",
40x1¼", 50x1½", 63x2"

Male Adapter
Ni plated Bronze threads
25x¾", 32x1", 40x1",
40x1¼", 50x1¼",
50x1½", 63x1½", 63x2"

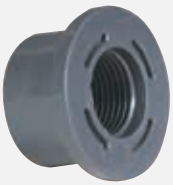
Female Adapter
Plastic threads
40x1¼", 50x1½", 63x2"

Female Adapter
Ni plated Bronze threads
20x½", 25x½", 25x¾",
32x¾", 32x1", 40x1",
40x1¼", 50x1¼",
50x1½", 63x1½", 63x2"

Threaded Elbow 90°
20x½", 25x½", 25x¾",
32x¾", 32x1"

Threaded Tee
20x½", 25x½", 25x¾",
32x¾", 32x1"

Reducer Bush
25x20, 32x20, 32x25
40x25, 40x32, 50x32
50x40, 63x32, 63x50
75x63, 90x75, 110x90



Threaded Reducer Bush
25x½", 32x½", 32x¾",
40x¾ ", 40x1", 50x1"
50x1¼", 63x1½"

NIC uPVC / PVC-U
Sewerage & Drainage System

"NIC PLASTICS" uPVC sewerage and drainage system is used extensively underground and inside building. uPVC piping system do not allow any leakage or seepage of sewage and thus prevent escape of harmful bacteria and viruses into environment. uPVC piping do not react to soil contaminants or acidity nor the waste water or the sewage passing through it. In addition, smooth & uniform surface of uPVC piping gives better hydraulic flow and fewer blockages.

Typical applications: Building sewers and underground building drains for home and industry, building storm sewers for home and industry, disposal fields for septic tank drains and leaching systems, subsoil drains for lowland and surface water drainage, sewer mains and sewer service.

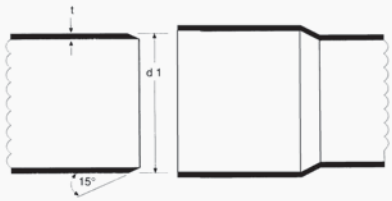
Properties of uPVC Pipes

Vicat Softening Temperature @ 1 Kg. Load	>85 ºC
Vicat Softening Temperature @ 5 Kg. Load	>80 ºC
Specific Gravity	≈1.45 gram/cm^3
Water Absorption	less than 4 mg/ cm^2

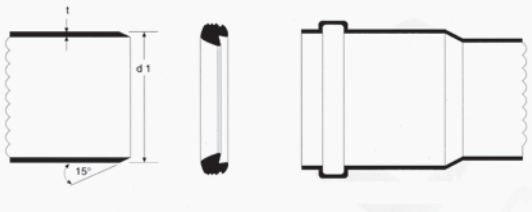
"NIC PLASTICS" uPVC Pipes are available in three type of sockets. This socket helps in connecting one pipe with another

uPVC Sewerage & Drainage Pipe Joints

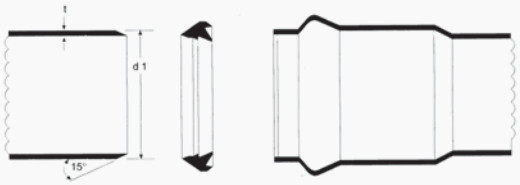
Solvent joint socket
Diameter 20mm to 400mm



Rubber joint socket
O Ring – System BL
Diameter 50mm to 250mm



Rubber joint socket
Anger Ring – System 3S
Diameter 110 mm to 400mm



uPVC Pipes for Sewerage, Drainage, Ventilation & Rain Water

1. DIN STANDARD

Nominal Size mm	Outside Diameter mm		Wall Thickness mm				
	Min.	Max	**DIN 8062 4 Kg/cm^2**	**DIN 8062 6 Kg/cm^2**	**DIN 19534**	**DIN 19531**	**Special**
50	50.0	50.2		1.8		1.8	2.2
63	63.0	63.2		1.9			
75	75.0	75.3	1.8	2.2		1.8	2.6
90	90.0	90.3	1.8	2.7			4.5
110	110.0	110.3	2.2	3.2	3.0	2.2 & 3.0	1.8
160	160.0	160.4	3.2	4.7	3.6	3.2 & 3.6	2.8
200	200.0	200.4	4.0	5.9	4.5		
250	250.0	250.5	4.9	7.3	6.1		
315	315.0	315.6	6.2	9.2	7.7		
400	400.0	400.7	7.9	11.7	9.8		

Length : 4, 5.8 & 6 Meters

Colour : Light Grey / Golden Brown

2. BRITISH STANDARD

Nominal Size Inch	Outside Diameter mm		Wall Thickness mm								
			BS EN 1329-1		**BS EN 1401-1**			**BS 5255**	**BS 4514**	**BS 4660**	**BS 5481**
	Min.	Max	B	BD	SDR51 SN2	SDR41 SN4	SDR34 SN8				
-	32.0	32.2	3.0								
1 ¼"	36.2	36.5	3.0					1.8			
-	40.0	40.2	3.0								
1 ½"	42.8	43.1	3.0					1.9			
-	50.0	50.2	3.0								
2"	55.8	56.1	3.0					2.0			
-	75.0	75.3	3.0	3.0							
3"	82.4	82.8	3.0	3.0					3.0		
4"	110.0	110.3	3.2	3.2		3.2	3.2		3.2	3.2	
6"	160.0	160.4	3.2	4.0	3.2	4.0	4.7		3.3	4.1	
8"	200.0	200.4	3.9	4.9	3.9	4.9	5.9				4.9
10"	250.0	250.5	4.9	6.2	4.9	6.2	7.3				6.1
12"	315.0	315.6	6.2	7.7	6.2	7.7	9.2				7.7
16"	400.0	400.7			7.9	9.8	11.7				9.8

Length : 4, 5.8 & 6 Meters

Colour : Light Grey / Golden Brown

Note : Non-standard colour, length and sizes can be manufactured.

uPVC Sewerage Fitting for Inside Building Installatoins

As per BS 4660, EN 1329, EN 1401 & the PAHW of Kuwait & meets requirements of DIN 19531 & DIN 19534

Suitable to use with all DIN, BS & EN standard pipes of "NIC PLASTICS"

Coupler	Coupler	Coupler	Reducer	Reducer	Reducer	Access Pipe with cap
Rubber Socket	**Rubber Socket**	**Solvent Socket**	**Rubber Socket**	**Rubber Socket**	**Solvent Socket**	
110, 160, 200 & 250mm	110, 160mm	110, 160mm	160x110, 110x75, 110x50mm	160x110, 110x75, 110x50mm	160x110, 110x75, 110x50mm	110 & 160mm

Elbow 87.5º	Elbow 87.5º	Elbow 87.5º	Elbow 45º	Elbow 45º	Elbow 45º
Rubber Socket	**Rubber Socket**	**Solvent Socket**	**Rubber Socket**	**Rubber Socket**	**Solvent Socket**
110 & 160mm	110 & 160mm	110 & 160mm	110 & 160mm	110 & 160mm	110 & 160mm

Junction 45º (Y)	Junction 45º (Y)	Junction 45º (Y)	Reduced Junction 45º (Y)	Reduced Junction 45º (Y)	Reduced Junction 45º (Y)
Rubber Socket	**Rubber Socket**	**Solvent Socket**	**Rubber Socket**	**Rubber Socket**	**Solvent Socket**
110 & 160mm	110 & 160mm	110 & 160mm	160x110, 110x75, 110x50mm	160x110, 110x75, 110x50mm	160x110, 110x75, 110x50mm

Junction 87.5º (T)	Junction 87.5º (T)	Junction 87.5º (T)	P - Trap	U - Trap	Non Return Valve	Square hopper
Rubber Socket	**Rubber Socket**	**Solvent Socket**	110mm	110mm	160mm	110mm
110 & 160mm	110 & 160mm	110 & 160mm				

All above fittings are also available in Light Grey colour for inside building installation.

uPVC Sewerage Fitting for Inside Building Installation

As per EN 1329, EN 1401 & the PAHW of Kuwait & meets requirements of DIN 19531 & DIN 19534
Suitable to use with all DIN, BS & EN standard pipes of "NIC PLASTICS"

Coupler
Rubber Socket
50 ,75, 110, 160,
200 & 250mm

Coupler
Solvent Socket
50, 75, 110 & 160mm

Reducer
Solvent Socket
110x50, 110x75,
75x50mm

Reducer
Rubber Socket
160x110, 110x75,
110x50, 75x50mm

Short Coupler
Solvent Socket
50mm

Elbow 87.5º
Rubber Socket
50, 75, 110, 160mm

Elbow 87.5º
Solvent Socket
50 & 75mm

Elbow 87.5º
Solvent Socket
50mm

Elbow 45º
Rubber Socket
50, 75, 110, 160mm

Elbow 45º
Solvent Socket
50 & 75mm

Elbow 45º
Solvent Socket
50mm

Threaded Elbow
Solvent Socket
50mm x 1½"

Junction 87.5º (T)
Rubber Socket
50, 75, 110, 160mm

Junction 87.5º (T)
Solvent Socket
50 & 75mm

Junction 87.5º (T)
Solvent Socket
50mm

Reduced Junction 87.5º (T)
Rubber Socket
160x110, 110x75,
110x50, 75x50mm

uPVC Sewerage Fitting for Inside Building Installatoins

As per EN 1329, EN 1401 & the PAHW of Kuwait & meets requirements of DIN 19531 & DIN 19534
Suitable to use with all DIN, BS & EN standard pipes of "NIC PLASTICS"

Junction 45° (Y)
Rubber Socket
50, 75, 110 & 160mm

Junction 45° (Y)
Solvent Socket
50 & 75mm

Reduced Junction 45° (Y)
Rubber Socket
110x50, 110x75mm

Reduced Junction 45° (Y)
Solvent Socket
110x50, 110x75mm

Pipe Plug & Socket Plug
50, 75,110,
160 & 200mm

Reducer Bush
Solvent Socket
160x110, 110x75,
110x50mm

Adapter PVC to CI Pipe
Rubber Socket
110mm x 4”

Coupler without stop
Solvent Socket
110 & 160mm

Floor Trap Covers
110 / 160mm

Extension Ring for Floor Trap
Solvent Socket
110, 160mm

Ventilation Cowl
110mm

Floor Trap with Extention & Cover

Floor Trap
Solvent Socket
110x50mm

Floor Trap
Solvent Socket
110x75x50mm, 160x110x50mm
160x110x75mm

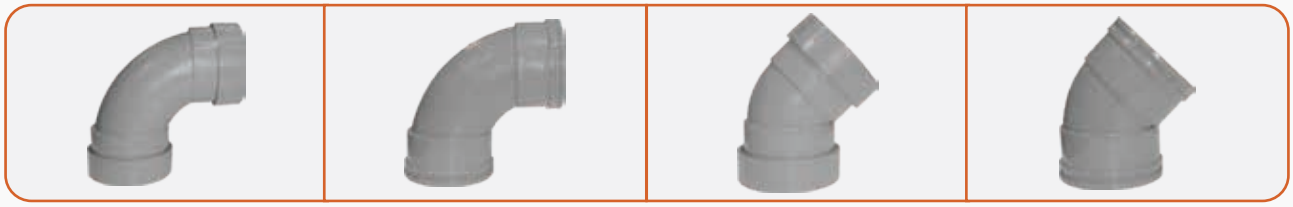
uPVC Sewerage Fitting for Inside Building Installatoins

2” (65mm) as per BS 5255 & EN 1329-1 & 3” (82mm) as per BS 4514
Suitable to use with BS 5255, EN 1329-1 & BS 4514 pipes of "NIC PLASTICS"

Coupler
Rubber Socket
2” (56mm) & 3” (82mm)

Coupler
Solvent Socket
2” (56mm) & 3” (82mm)

Reducer Bush
Solvent Socket
3” (82mm) & 2” (56mm)
110mm & 2” (56mm)
110mm & 2” (82mm)

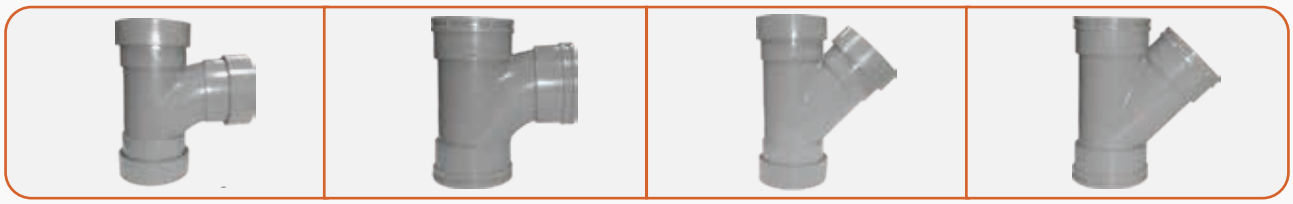


Elbow 87.5º
Rubber Socket
2” (56mm) & 3” (82mm)

Elbow 87.5º
Solvent Socket
2” (56mm) & 3” (82mm)

Elbow 45º
Rubber Socket
2” (56mm) & 3” (82mm)

Elbow 45º
Solvent Socket
2” (56mm) & 3” (82mm)



Junction 87.5º (T)
Rubber Socket
2” (56mm) & 3” (82mm)

Junction 87.5º (T)
Solvent Socket
2” (56mm) & 3” (82mm)

Junction 45º (Y)
Rubber Socket
2” (56mm) & 3” (82mm)

Junction 45º (Y)
Solvent Socket
2” (56mm) & 3” (82mm)

British Standard Pipes

Nominal Size (Inch)	Outside Diameter (mm)				Wall Thickness (mm)	
	min.	max.	**BS 5255**	**BS 4514**	**EN 1329-1**	Special
2”	55.75	56.05	2.0		3.0	
3”	82.40	82.80		3.2		2.2

400X160mm

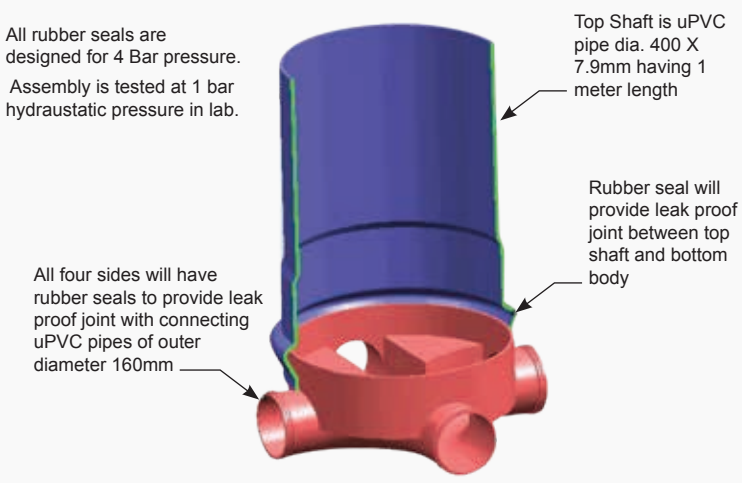
400X110mm

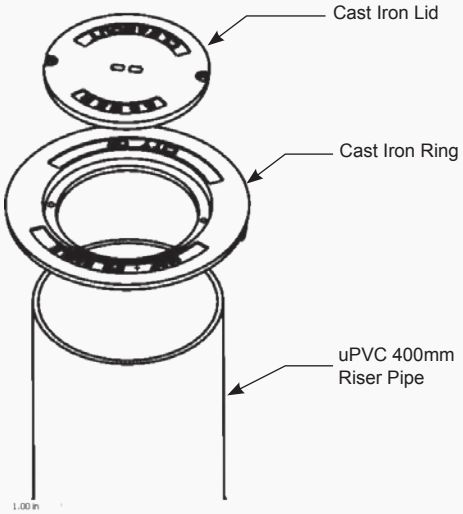
uPVC Inspection Chamber BS EN13598-1 (Cleanout / Sampling / Access Chamber)

The Property chamber 400X110mm and 400X160mm are injection molded from uPVC with three inlet and one outlet, all designed to prevent deposition of solids. All four sides have rubber seals to provide leak proof joint with connecting uPVC pipes of outer diameter 110mm and 160mm, all rubber seals are designed for 4bar pressure. One can use socket plug to close one of the branches. Top Shaft (Riser Pipe) 400X7.9mm, 1meter height supplied to raise the height. Riser pipe length can be supplied as per customer's requirement.

Benefits and Features

- Economical to purchase, install and maintain.
- Reduced installation time and costs when compared to brick and concrete manholes.
- Angular adjustments for a neat finish on sloped areas.
- Allows safe and convenient cleaning, rodding and CCTV access.
- Increased flow characteristics designed by computer aided design.





NIC uPVC / PVC-U
Cable Ducts & Accessories

"NIC PLASTICS" uPVC cable ducts and accessories meets all requirements of local governmental bodies like MOC, NHA & MEW. "NIC PLASTICS" uPVC cable ducts are tested from time to time by third party and they are approved by all concern local governmental bodies.

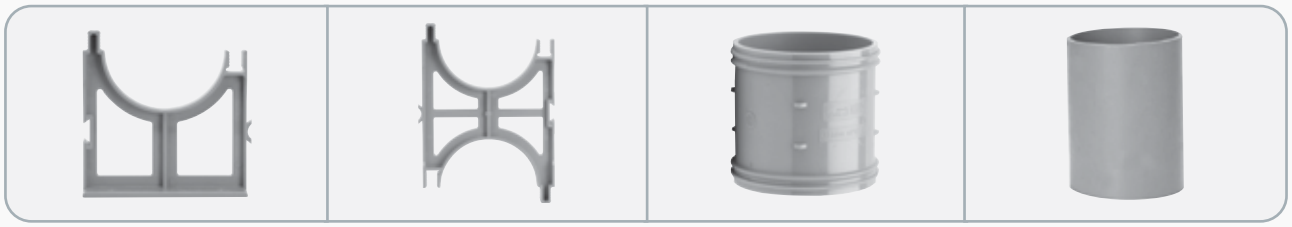
uPVC Cable Ducts

As per EN / IEC 61386-24, DIN 8062, MOC, MEW & PAHW

Nominal Size mm	Outside Diameter mm		Wall Thickness mm					
	Min.	Max	MOC & PAHW	MEW	MEW Crossing Road	DIN 8062 4 Kg/cm^2	DIN 8062 6 Kg/cm^2	Duct
50	50.0	50.2	3.0		3.0		1.8	2.2
75	75.0	75.3		2.6	3.6	1.8	2.2	2.2
90	90.0	90.3	4.5			1.8	2.7	
110	110.0	110.3	4.5	3.2	4.5	2.2	3.2	2.2
160	160.0	160.4	5.0	3.6	5.0	3.2	4.7	3.2
200	200.0	200.4		5.0	7.7	4.0	5.9	4.5
250	250.0	250.5				4.9	7.3	6.1
315	315.0	315.6		7.7	12.1	6.2	9.2	
400	400.0	400.7				7.9	11.7	

Item	Description of Quality	Specification	Test Method
1	Desnity (without filler)	1.4 to 1.5 gm/sq.cm	ASTM D 792
2	Co-efficient of viscosity (without filler)	57-70	ISO R 174
3	Modulus of elasticity	27 to 3200 KP/Sq.cm	ASTM D 1708
4	Hardness	Shore D >80	ASTM D 2240
5	Tensile Strength	Min 500 Kgf/Sq.cm	BS 3506 / 6
6	Softening Point	Min 85 Degree C	BS 102 / C
7	Flexural Strenght	900 Kgf/Sq.cm +/- 10%	BS 3506 / 6
8	Compressive Strength	Min 560 Kgf/Sq.cm	BS 3506 / 6
9	Imapce Strength	4.5 M	BS 3506 / 6
10	Co-efficienet of linear expansion	5X10 (-5) Degree C	BS 3506 / 6
11	Insulation Resistance at 60 degree C	600 M Ohm	MOC Requirement
12	Dielectric Strength at 27 degree C	1000 V / Mil (min)	MOC Requirement
13	Specific heat	0.25 Cal/Deg C/gm	BS 3506 / 6

uPVC Cable Duct Accessories

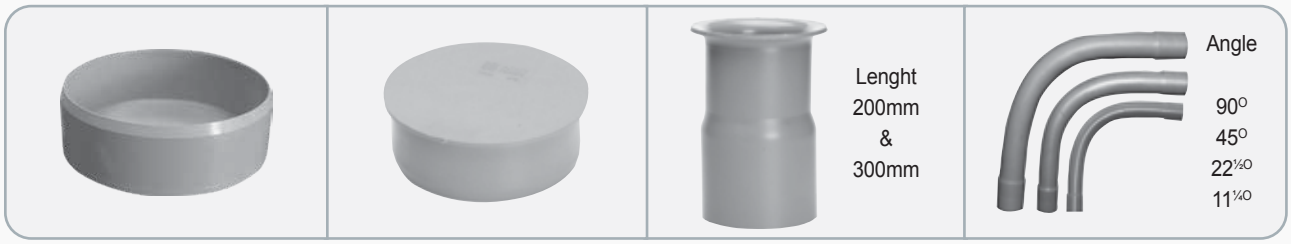


Base Spacer
110,160 & 200 mm

Intermediate Spacer
110,160 & 200 mm

Coupler
50,75,110,160 & 200 mm

Coupler without stop (Repair)
110mm & 160mm



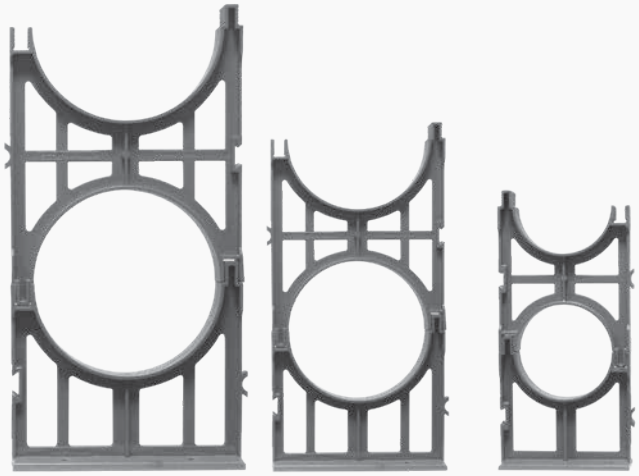
Pipe Plug
110,160 & 200 mm

Scoket Plug
50, 75,110, 160 & 200 mm

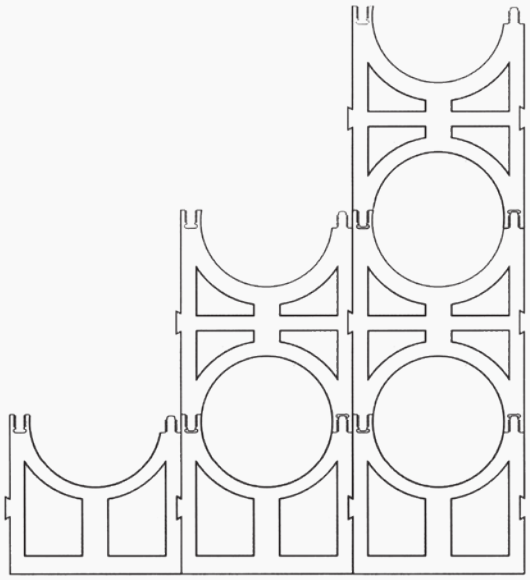
Bell Mouth Ends
50,75,90,110,160,200,315

Long Radius Bends
50,75,90,110,160,200,315
radius as required

All above fittings are in Light Grey colour



Spacer 200mm | Spacer 160mm | Spacer 110mm



Pipes can be organised in rows and columns by using spacers

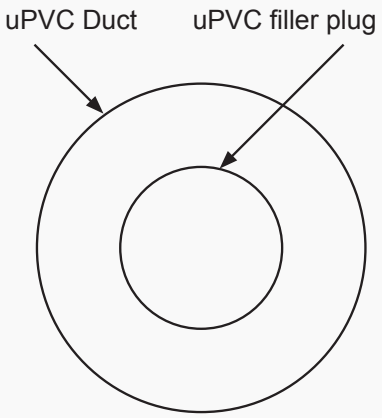
uPVC Filler Plug for uPVC Cable Duct

As per MEW Standard

In order to seal unused uPVC Ducts, NIC filler plugs are used.

The selection of uPVC filler plugs is as follows.

No	uPV Duct size OD (mm)	uPVC Filler Plug OD (mm)	Min. Sealant cover length (mm)
1	250 mm	200mm x 250mm	200
2	200 mm	125mm x 250mm	150
3	160 mm	90mm x 250mm	150
4	110 mm	50mm x 250mm	150



The uPVC filler plug shall be held centrally, while filling sealant around the plug.

The gap between uPVC Duct and uPVC filler plug shall be filled with sealant “Denso seal 16A” or similar.

The test pressure of assembly of uPVC filler plug with sealant depends on client’s requirement and sealant used. The assembly must at least withstand 2 meters water head (0.2 bar) for 30 minutes.

uPVC filler plugs are designed to withstand 10 bar (100 meter water height).

NIC uPVC / PVC-U
Conduit Pipes & Accessories

"NIC PLASTICS" uPVC conduit pipes and accessories are non corroding unlike steel conduit system. uPVC conduit system is self extinguishing. uPVC conduit system is very easy to install and it is very economical. uPVC conduit system has very good insulation property compared to other conduit systems.

uPVC Conduit Pipes

As per EN 50086, BS 6099/2, BS 4607, EN 61386-½1, IEC 6142-2, KSS 230 & 231 & GSO 32 & 33

Nominal Size (OD) mm	Light (Yellow)		Medium (Blue)		Heavy (Red)	
	Min. Inside Diam-eter	**Wall.** Thickness	**Min.** Inside Diam-eter	**Wall.** Thickness	**Min.** Inside Diam-eter	**Wall.** Thickness
20	17.4	1.3	16.9	1.55	15.5	1.9
25	22.1	1.5	21.4	1.8	20.6	2.0
32	28.6	1.5	27.8	2.1	26.6	2.5
38	34.8	1.6	33.6	2.2	33.0	2.5
50	45.1	1.8	44.3	2.2	43.2	2.5 / 3.2

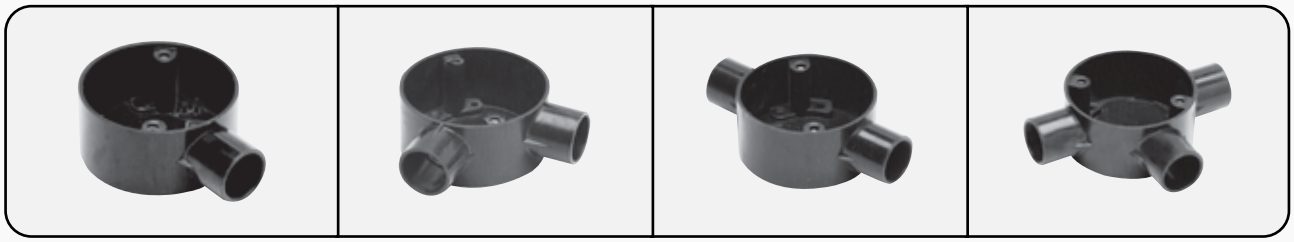
Length: 2, 9, 3 Meters Colour: Black, Gray
Socket: Solvent socket.

Notes:

1. Conduit dimensions are as per BS 6099 except size 38 mm.
2. Size 38 mm is non standard size, but 38 mm pipe meets all requirements of Kuwaiti and British standards except size.
3. Light (yellow),Medium (Blue) & Heavy (Red) are groups, made based on thickness of conduits, but all three grounps meets requirements of Kuwaiti and British Standards.
4. Normally pipes are supplied with integrated sockets, but pipes without integrated socket (plain ends) can be manufactured on request.
5. Non - standard colour, length and size can be manufactured request.

uPVC Conduit Pipes & Accessories

As per BS 4607, EN 61386-½1 & KSS 320 & 231

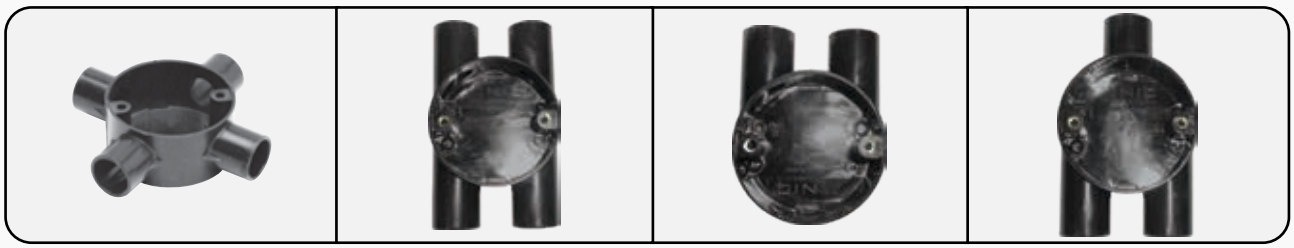


Junction Box
1 – Way
2BA threads
20 & 25 mm

Junction Box
2 – Way Angel
2BA threads
20 & 25 mm

Junction Box
2 – Way Thru
2BA threads
20 & 25 mm

Junction Box
3 – Way
2BA threads
20 & 25 mm

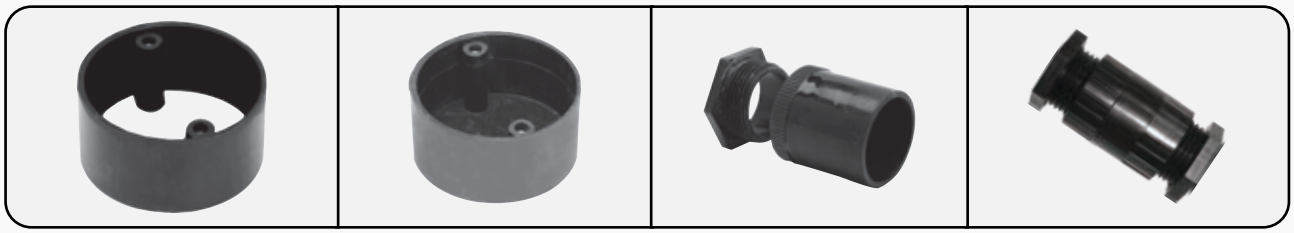


Junction Box
4 – Way
2BA threads
20 & 25 mm

Junction Box
H – Way
2BA threads
20 & 25 mm

Junction Box
U – Way
2BA threads
20 & 25 mm

Junction Box
Y – Way
2BA threads
20 & 25 mm

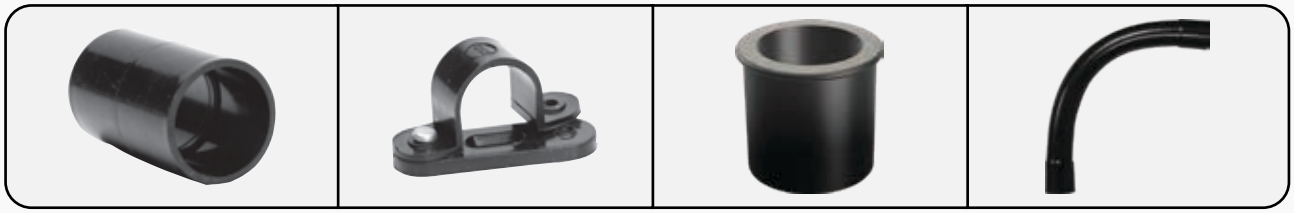


Extension Ring
2BA threads
65 mm

Loop - in - Boxes
2BA threads
65 mm

Feamle Adapter & nut
20,25.32, 38 & 50 mm

Double Female Adapter & Nuts
20 mm



Couplers
20, 25, 32, 38 & 50mm

Saddle With Base& Screws
20, 25, 32, 38 & 50mm

Reducer
25x20 mm

Long Radious Bends
20, 25, 32, 38 & 50 mm

Sales Outlet

Our Division at Abyat Showroom

Shuwaikh Industrial Area
Canada Dry Street
Abyat Showroom
Contact: 1848000

Working Hours*:
Saturday - Friday
8:00am - 10:00pm

Headquarter Shuwaikh

South Shuwaikh
intersection of Jahra Road
and the Airport Road,
Next to the
Red Crescent Society.

Tel: 24642100
Kuwait Hotline: 1844555

Working Hours*:
Sunday - Thursday
7:30am - 3:00pm

Western Industrial Shuaiba

Tel: 24642300
Ceramics Factory:
23262714/10

Working Hours*:
Saturday - Thursday
7:30am - 3:00pm

Sulaibiya

Tel: 24642200

Working Hours*:
Saturday - Thursday
7:30am - 3:00pm

Ceramics Showroom

Industrial Shuwaikh
Humaidhi Complex
Opposite to Bin Nisf Co.
Tel: 24950871/2
Factory: 23262714/10

Working Hours*:
Saturday - Thursday
9:00am - 9:00pm

Industrial Shuwaikh Showroom

Industrial Shuwaikh2
Block1 - Area 92
Al-Zaben Complex
Shops : 12,13,14
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Working Hours*:
Saturday - Thursday
7:00am-9:00pm

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* Working hours are subject to change according to holidays and occasions

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