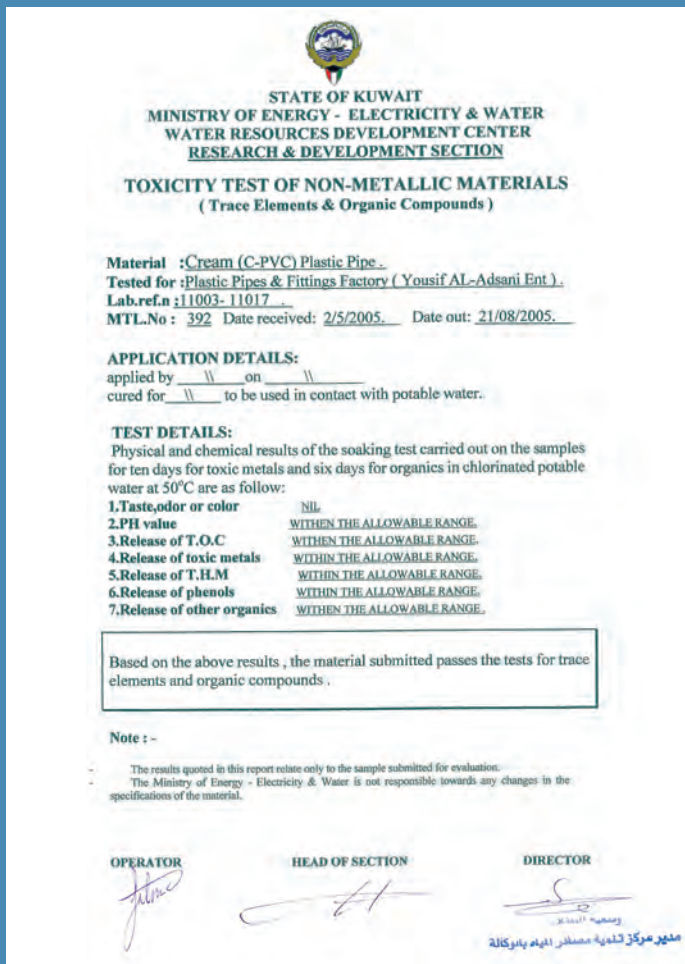


# C-PVC PRESSURE PIPES & FITTINGS HOT & COLD WATER SERVICES



PLASTIC PIPES & FITTINGS FACTORY  
YOUSIF KHALID AL-ADASANI EST.





# C-PVC Piping System

## Material:

C-PVC , chlorinated polyvinyl chloride, is a polymer of the hydrocarbon “ vinyl “with addition of Chlorine.

## Manufacturing Standards:

DIN 8079 / 8080, ISO 15877

## Major Advantages:

- Lightweight & easy installation
- Non-Toxic and resistant to microbiological growth
- High mechanical properties
- High chemical & corrosion resistance
- Low friction loss
- Low thermal conductivity
- None flame propagating - Self-extinguishing

## Application Field

- Drinking water systems
- Hot & cold water services
- Industrial projects
- Central heating system
- House connections

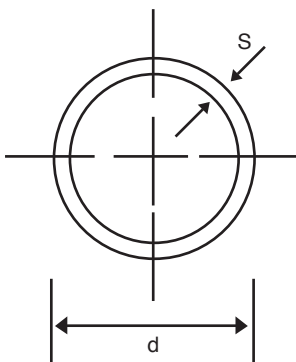
## General Properties

Properties	Value	Unit
Density	$\approx 1.55$	$\text{g/cm}^3$
Vicat softening temperature (VST/B/50)	$\geq 110$	$^{\circ}\text{C}$
Co-efficient of linear expansion	$\approx 0.7 \times 10^{-4}$	$\text{K}^{-1}$
Tensile Strength	$\geq 50$	MPa
Modules of Elasticity at 23 $^{\circ}\text{C}$	$\geq 2500$	MPa
Impact strength	Comply with DIN 8080	-
Heat Reversion	$\leq 5\%$ ( DIN 8080 )	-
Opacity	$\leq 0.2\%$	-
Thermal Conductivity	$\approx 0.14$	$\text{W K}^{-1} \text{m}^{-1}$

## C-PVC Pressure Pipes

DIN 8079 / 8080, DIN / BS EN ISO 15877 and Kuwaiti Standard 881

d (outside diameter in mm)	Pipe Series			
	6.3		4	
	Standard Dimension Ratio, SDR			
	13.6		9	
	Nominal Pressure, PN			
	PN 16		PN 25	
	s (wall thickness in mm)	Weight Kg/m	s (wall thickness in mm)	Weight Kg/m
20	1.5	0.151	2.3	0.217
25	1.9	0.234	2.8	0.326
32	2.4	0.379	3.6	0.533
40	3.0	0.589	4.5	0.830
50	3.7	0.896	5.6	1.280
63	4.7	1.420	7.1	2.050
75	5.6	2.010	8.4	2.88
90	6.7	2.880	10.1	4.15
110	8.1	4.270	12.3	6.16
160	11.8	8.970	17.9	13.0
200	14.7	14.0	-	-



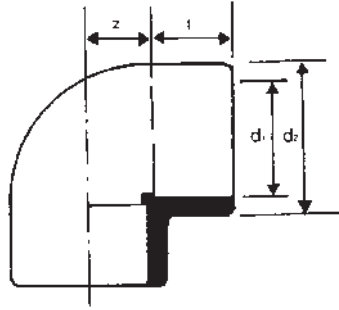
d : outside diameter  
s : wall thickness  
measurements in mm



## C-PVC Pressure Pipe Fittings, DIN / BS EN ISO 15877

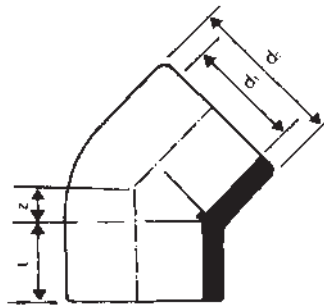
### Elbow 90° (GIC)

$d_1$	$d_2$	$t$	$z$
20	27.5	16.5	12.0
25	33.3	19.5	14.2
32	41.0	22.5	19.3
40	49.7	26.0	22.3
50	61.0	31.0	27.5
63	75.0	38.0	34.4
75	91.0	45.0	38.5
90	107.5	51.5	47.5
110	130.5	61.5	60.2



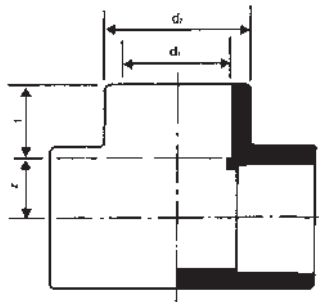
### Elbow 45° (GIC)

$d_1$	$d_2$	$t$	$z$
20	27.5	16.5	12.0
25	33.3	19.5	14.2
32	41.0	22.5	19.3
40	49.7	26.0	22.3
50	61.0	31.0	27.5
63	75.0	38.0	34.4
75	91.0	45.0	38.5
110	131	61.5	48



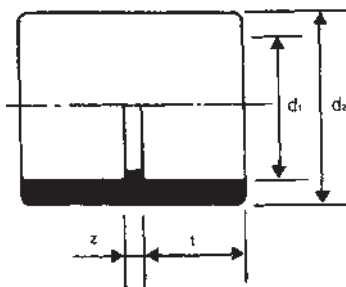
### Tee 90° (TIC)

$d_1$	$d_2$	$t$	$z$
20	27.5	16.5	2.0
25	33.3	19.5	14.2
32	41.0	22.5	19.3
40	49.7	26.0	22.3
50	61.0	31.0	27.5
63	75.0	38.0	34.4
75	91.0	45.0	38.5
90	107.5	51.5	47.5
110	130.5	61.5	60.2



### Double Socket (MIC)

$d_1$	$d_2$	$t$	$z$
20	27.5	16.5	2.0
25	33.3	19.5	14.2
32	41.0	22.5	19.3
40	49.7	26.0	22.3
50	61.0	31.0	27.5
63	75.0	38.0	34.4
75	91.0	45.0	38.5
90	107.5	51.5	47.5
110	130.5	61.5	60.2



### Short Reducing Bushes (DIC)

$d_1 \times d_2$	$t_1$	$t_2$	$z$
25/20	19.5	16.5	3.0
32/20	22.5	16.5	6.0
32/25	22.5	19.5	3.0
40/20	26.0	16.5	9.5
40/25	26.5	19.5	7.0
40/32	26.5	22.5	4.0
50/20	31.0	16.0	15.0
50/25	31.0	19.0	12.0
50/32	31.0	22.5	8.5
50/40	31.0	26.0	5.0
63/32	38.0	22.5	16.5
63/40	38.0	26.0	12.0
63/50	38.0	31.0	7.0
75/32	45.0	23.0	22.0
75/40	45.0	26.5	18.5
75/50	45.0	32.2	12.7
75/63	45.0	38.5	6.5
90/40	61.2	26.5	34.7
90/50	61.2	32.1	29.1
90/63	61.2	38.5	22.7
90/75	61.2	44.0	17.2
110/63	61.7	39.2	22.0
110/75	61.7	44.8	16.9
110/90	61.7	39.2	22.0

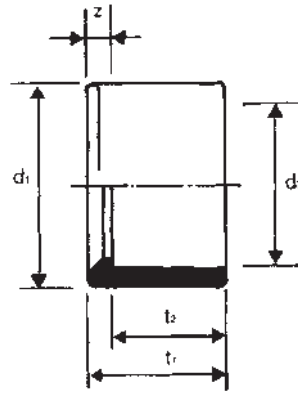


Figure. A

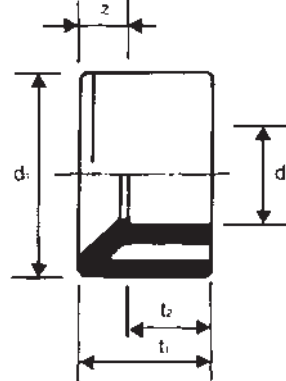
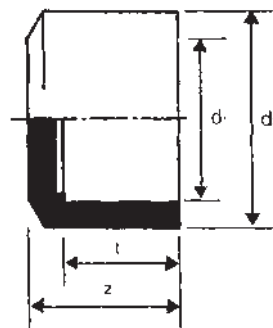


Figure. B



### End Cap (CIC)

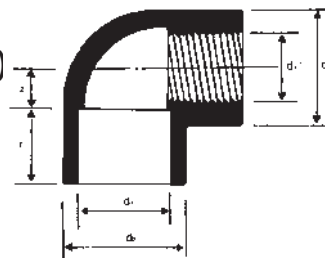
$d_1$	$d_2$	$t$	$H$
20	27.6	16.5	23.2
25	33.2	19.5	26.3
32	41.1	22.5	30.85
40	51	26	36
50	62	31	43
63	77	38	51
90	110.0	51.5	68.0
110	133.5	61.5	82.0



### Elbow 90° Reduced Female Threaded (GRFC)

with one socket for solvent welding and one reduced threads

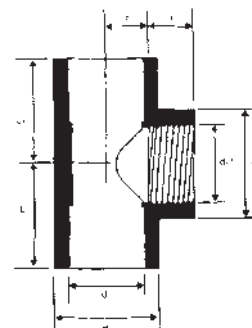
$d_1 \times d_1'$	$d_2$	$d_2'$	$z$	$t$
25 x 1/2"	33.0	33.0	13.2	19.5



### Tee 90° Reduced Female Threaded (TRFC)

with two sockets for solvent welding and reduced threaded branch

$d_1 \times d_1'$	$d_2$	$d_2'$	$L_1$	$z$	$t$
25 x 1/2"	33.0	33.0	33.0	13.2	19.5

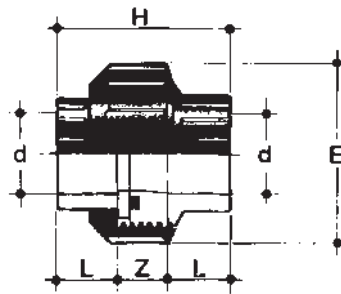




### Socket union (BIC)

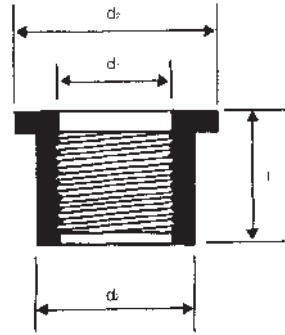
Sockets for solvent welding

d	H	L	Z	E
20	45	16	13	41.0
25	51	19	13	50.0
32	57	22	13	58.0
40	67	26	15	72.0
50	79	31	17	79.0
63	98	38	22	98.0



### Threaded Short Reducer (DIFC)

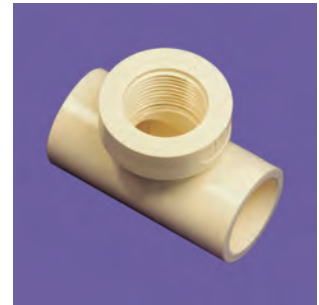
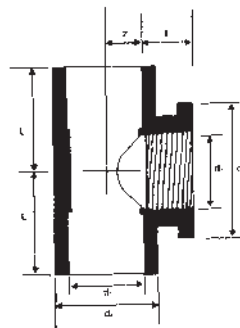
$d_2 \times d_1'$	$d_2'$	t
25 x 1/2"	33	21



### Tee 90° Equal TIFC

with two sockets for solvent welding and threaded branch

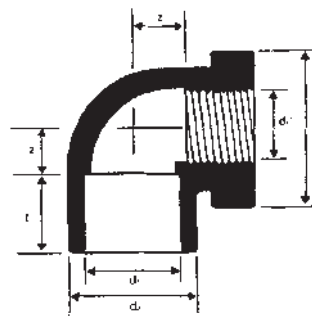
$d_1 \times d_1'$	$d_2$	$d_2'$	$L_1$	z	t
25 x 3/4"	33.0	41.0	33.0	13.0	19.5



### Elbow 90° Female Threaded (GIFC)

with one socket for solvent welding and one threads

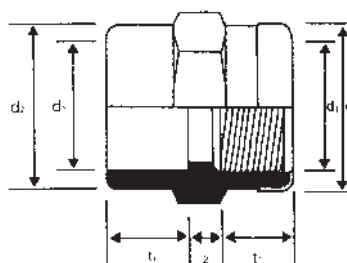
$d_1 \times d_1'$	$d_2$	$d_2'$	z	t
25 x 3/4"	33.0	41.0	13.5	19.5



### Female Adapter (MIFC)

with one socket for solvent welding, female end threaded + reinforced thickness

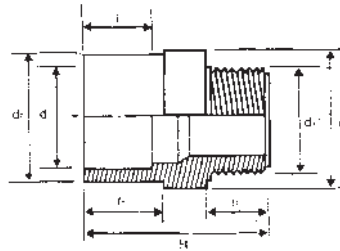
$d_1 \times d_1'$	$d_2$	$d_2'$	$t_1$	$t_1'$	z
20 x 1/2"	28.0	30.0	16.5	16	3.0
25 x 3/4"	34.0	35.0	19.5	18	3.0
32 x 1"	42.0	45.0	22.5	20	2.5
40 x 1 1/4"	51.0	55.0	26.0	22	2.5
50 x 1 1/2"	61.0	62.0	31.0	25	3.0
63 x 2"	75.5	75.0	38.0	27	3.5



### Male Adapter (KIFC)

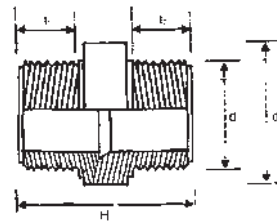
with one socket for solvent welding, male end threaded

$d_1$	$d_1'$	$d_2$	$d_2'$	$t_1$	$t_2$	$t_3$	H
20	1/2"	27.5	32.0	16.50	14.00	16.6	40
25	3/4"	33.0	36.0	19.50	16.00	19.0	44
32	1"	41.0	46.0	22.50	18.00	21.8	50
40	1 1/4"	49.5	54.5	26.00	23.00	24.0	56.5
50	1 1/2"	60.8	64.5	31.00	28.00	24.0	62.0
63	2"	75.0	79.4	38.00	36.00	28.0	75.5
75	2 1/2"	75.0	79.4	38.00	36.00	28.0	75.5
90	3"	109.3	110	51.1	61.5	34	111.8
110	4"	129	129.0	61.5	70.0	39.5	34



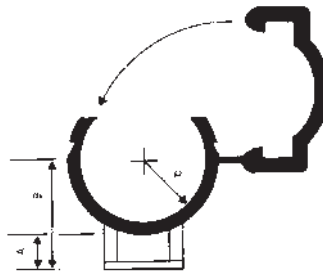
### Double Threaded Connector (NMC)

$d_1$	$d_2$	$t_1$	$t_2$	H
1/2"	21.5	15.0	15.0	38
3/4"	29.5	17.0	17.0	44



### Mono D'Clips (MDC)

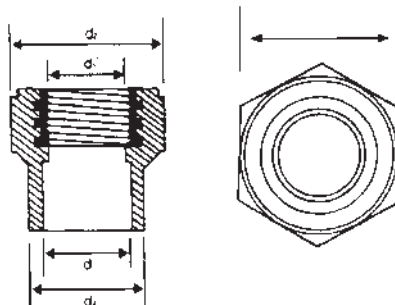
2R	A	B	R
20	6	18.5	10
25	8	23.5	12.5
32	8.5	28.0	16.0



### Female Adaptor with Brass Insert

with one socket for solvent welding, and one female end with metal threads

Code	$d_1 \times d_1'$	$d_2$	$d_2'$
MINC	20 x 1/2"	27.6	10.3
MRNC	25 x 1/2"	33.3	46.0
MINC	25 x 3/4"	33.2	46.0
MRNC	32 x 3/4"	40.8	51.0
MINC	32 x 1"	40.8	51.0
MRNC	40 x 1"	50.0	60.7
MINC	40 x 1 1/4"	50.0	60.7
MRNC	50 x 1 1/4"	63.0	70.3
MINC	50 x 1 1/2"	63.0	70.3
MRNC	63 x 1 1/2"	75.0	81.5
MINC	63 x 2"	75.0	81.5

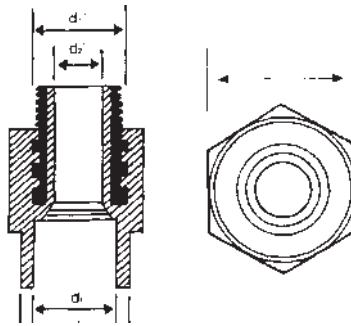




### Male Adaptor with Brass Insert

with one socket for solvent welding, and one male end with metal threads

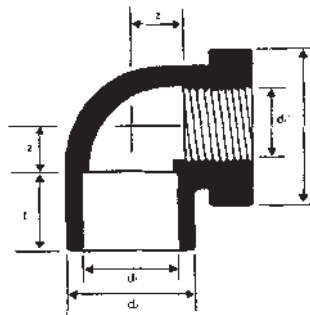
Code	$d_1 \times d_1'$	$d_2$	$d_2'$
KINC	20 x 1/2"	27.3	10.3
KINC	25 x 3/4"	32.2	15.5
KINC	32 x 1"	40.3	21.0
KRNC	40 x 1"	50.0	20.5
KINC	40 x 1 1/4"	50.0	28.0
KRNC	50 x 1 1/4"	62.9	28.0
KINC	50 x 1 1/2"	62.9	33.5
KRNC	63 x 1 1/2"	74.9	33.5
KINC	63 x 2"	74.9	42.0



### Elbow 90° Adaptor with Brass Insert

with one socket for solvent welding and one with metal threads

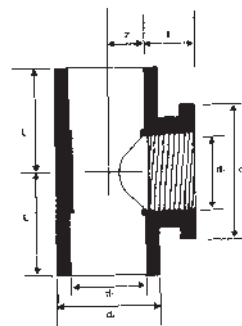
$d_1 \times d_1'$	$d_2$	$d_2'$	t	z
GINC	20 x 1/2"	37.0	16.5	12.5
GRNC	25 x 1/2"	43.0	19.5	15.5
GINC	25 x 3/4"	43.0	19.5	15.5
GRNC	32 x 3/4"	49.0	22.5	17.0
GINC	32 x 1"	49.0	22.5	17.0



### Tee 90° Adaptor with Brass Insert

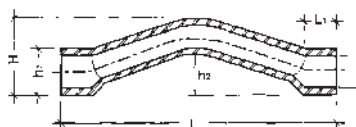
with two sockets for solvent welding and one with metal threaded branch

Code	$d_1 \times d_1'$	$d_2$	$d_2'$	t	z
TINC	20 x 1/2"	27.5	37.0	16.5	12.25
TRNC	25 x 1/2"	34.2	43.0	19.5	15.0
TINC	25 x 3/4"	34.2	43.0	19.5	15.0
TRNC	32 x 3/4"	40.5	49.0	22.5	17.5
TINC	32 x 1"	40.5	49.0	22.5	17.5



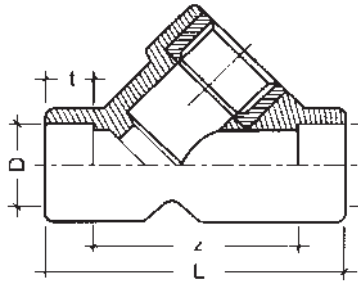
### Step-over bend (SOBC)

D	H	$h_1$	$h_2$	$L_1$	L
20	46	28.2	24	15.5	160
25	58.0	35	32	22	201
32	66	43	34.5	22.5	172
40	82	53	43	21.5	240



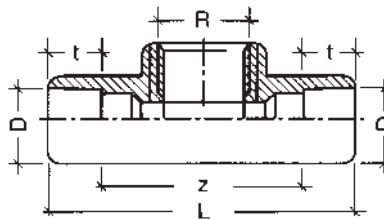
### Slanted seat valve (GVC)

D	t	Z	L
25	16	86	118
32	18	82	118



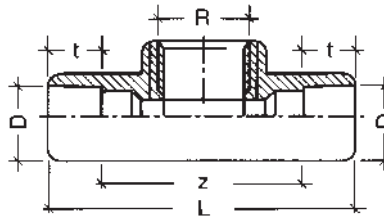
### Concealed / shut off valve (CVC)

D	R	t	Z	L
20	3/4"	15	66	96
25	3/4"	16	64	96
32	1"	18	80	116



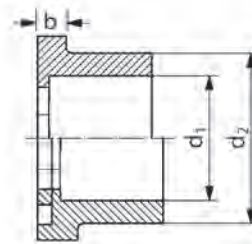
### Gate valve (TGVC)

D	R	t	Z	L
20	3/4"	15	66	96
25	3/4"	16	64	96
32	1"	18	80	116



### Flange Adapter (QPC)

Pipe out side diameter, mm	d <sub>1</sub>	d <sub>2</sub>	b
50	50.3	61	5.4
63	63.3	76	6.3
75	75.3	90	7.2
90	90.3	108	8.7
110	110.3	131	10.2



Dimensions in mm

### Backing Ring (ODC)

Pipe out side diameter, mm	Nominal size of flange	d <sub>3</sub>	D	K	d <sub>4</sub>	Number of bolts
50	40	63	152	110	18	4
63	50	78	168	125	18	4
75	65	92	187	145	18	4
90	80	110	202.5	160	18	8
110	100	133	220	180	18	8



Dimensions in mm

#### Note:

For other sizes of fittings not listed in this catalogue or other types of pipe accessories please contact our sales department.

All sizes in mm otherwise mentioned.

## Temperature & Pressure Relationship

### C-PVC

temperature, °C	S 6.3	S 4
	Standard Dimension Ratio, SDR	
	13.6	9
	PN 16	PN 25
	Allowable working pressures, bar	
10	18.3	28.9
20	16.0	25.0
30	13.6	21.6
40	11.3	17.9
50	9.1	14.4
60	7.0	11.4
70	5.3	8.4
80	3.9	6.2
95	2.1	3.4

PN = Nominal Pressure, bar





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