

U-PVC PRESSURE AND NON PRESSURE PIPES & FITTINGS



Plastic Pipes & Fittings Factory
Yousif Khalid Al-Adasani Ent.



Plastic Pipes & Fittings Factory
Yousif Khalid Al-Adasani Ent.

BUREAU VERITAS
Certification



Certification

Awarded to

PLASTIC PIPES AND FITTINGS FACTORY YOUSIF KHALID AL-ADASANI ENT.

P.O. BOX: 1653, SAFAT - 13017

STATE OF KUWAIT

Bureau Veritas Certification certify 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

STANDARD

ISO 9001:2008

SCOPE OF CERTIFICATION

MANUFACTURE, STORAGE AND SALES OF U-PVC PIPES AND FITTINGS (PRESSURE, SEWAGE, DRAINAGE, ELECTRICAL CONDUITS AND CABLE DUCTS); C-PVC, POLYPROPYLENE (PP) AND POLYBUTYLENE (PB) PIPES AND FITTINGS (FOR HOT AND COLD WATER SERVICES); HIGH DENSITY POLYETHYLENE (HDPE - PE-100) PIPES AND FITTINGS FOR PORTABLE WATER, IRRIGATION, GAS, DRAINAGE, SEWAGE AND CABLE PROTECTION; LDPE AND LLDPE PIPES FOR IRRIGATION

PERMITTED EXCLUSION (S)

7.3 - Design and Development

7.5.4 - Customer Property

Original Approval Date: **21st NOVEMBER 1996**

Subject to the continued satisfactory operation of the organisation's Management System, this certificate is valid until: **23rd DECEMBER 2012**

To check this certificate validity please call **(+965 2431 50 78)**

Further clarifications regarding the scope of this certificate and the applicability of the management system requirements may be obtained by consulting the organisation

Date: **23rd JANUARY 2010**


Certificate Number: **IND10.7024**

Certification Office:

Bureau Veritas Certification (India) Private Limited
Marwah centre, 6th Floor, Keshavnagar Marwah Marg,
Opp. Ansa Industrial Estate, Off Sakin Vihar Road,
Andheri (East), Mumbai - 400 072, India.

Managing Office:

Bureau Veritas
P. O. Box 1476, Farwahya 81025


Royan BRITTO
Chief Executive for Kuwait

BUREAU VERITAS
CERTIFICATION (Holding) S.A.
using the accreditation certificate
number 008



U-PVC and PVC-HI Pressure and Non Pressure Pipes Dimensions, as per DIN 8062 & KWS 686 / GSO 675 & SASO 14

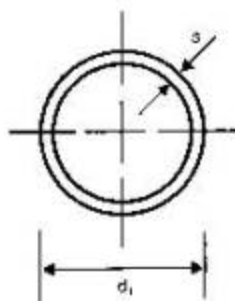
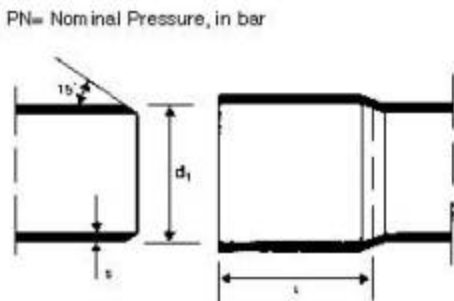
Nominal outside diameter d,mm	SDR 126 (Class 1) (Non Pressure)				SDR 51 (Class 2) PN4				SDR 34.334 (Class 3) PN 6				SDR 21 (Class 4) PN 10				SDR 13.5 (Class 5) PN 16			
	Wall thickness, mm	Weight, kg/m	LSS t,mm	LRS, t mm	Wall thickness, mm	Weight, kg/m	LSS t,mm	LRS, t mm	Wall thickness, mm	Weight, kg/m	LSS t,mm	LRS, t mm	Wall thickness, mm	Weight, kg/m	LSS t,mm	LRS, t mm	Wall thickness, mm	Weight, kg/m	LSS t,mm	LRS, t mm
16	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1.2	0.09	-	-
20	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1.5	0.137	-	-
25	-	-	-	-	-	-	-	-	-	-	-	-	1.5	0.174	-	-	1.9	0.212	-	-
32	-	-	-	-	-	-	-	-	-	-	-	-	1.8	0.264	-	-	2.4	0.342	-	-
40	-	-	-	-	-	-	-	-	1.8	0.334	-	-	1.9	0.35	-	-	3.0	0.525	-	-
50	-	-	-	-	-	-	-	-	1.8	0.422	-	-	2.4	0.552	50.0	-	3.7	0.809	50	-
63	-	-	-	-	-	-	-	-	1.9	0.562	-	-	3.0	0.854	63	117	4.7	1.29	63	117
75	-	-	-	-	1.8	0.642	70	119	2.2	0.782	70	119	3.6	1.22	70	119	5.6	1.82	70	119
90	-	-	-	-	1.8	0.774	80	124	2.7	1.13	80	124	4.3	1.75	80	124	6.7	2.61	80	124
110	1.8	0.95	100	129	2.2	1.16	100	129	3.2	1.64	100	129	5.3	2.61	100	129	8.2	3.9	100	129
125	1.8	1.08	110	135	2.5	1.48	110	135	3.7	2.13	110	135	6	3.34	110	135	9.3	5.01	110	135
160	1.8	1.39	125	142	3.2	2.41	125	142	4.7	3.44	125	142	7.7	5.47	125	142	11.9	8.17	125	142
200	1.8	1.74	150	150	4.0	3.7	150	150	5.9	5.37	150	150	9.6	8.51	150	150	14.9	12.8	150	150
225	1.8	1.96	160	162	4.5	4.7	160	162	6.6	6.76	160	162	10.8	10.8	160	162	16.7	16.1	160	162
250	2.0	2.4	165	162	4.9	5.65	165	162	7.3	8.31	165	162	11.9	13.2	165	162	18.6	19.9	165	162
280	2.3	3.11	180	172	5.5	7.11	180	172	8.2	10.4	180	172	13.4	16.6	180	172	20.8	24.9	180	172
315	2.5	3.78	200	180	6.2	9.02	200	180	9.2	13.2	200	180	15	20.9	200	180	23.4	31.5	200	180
355	2.9	4.88	210	189	7.0	11.4	210	189	10.4	16.7	210	189	16.9	29.5	210	189	26.3	39.9	210	189
400	3.2	6.1	220	200	7.9	14.5	220	200	11.7	21.1	220	200	19.1	33.7	220	200	29.7	50.8	220	200

LSS= Length Solvent cement Socket, t min.

LRS= Length Rubber ring Socket t min.

* PVC-HI : High Impact PVC

PN= Nominal Pressure, in bar



D_1 = Outside diameter
 s = Wall thickness
 t = length of socket
 Measurements in mm



Dimensions of U-PVC pressure pipes according to DIN EN / BS EN 1452 and BS EN ISO 1452 Standards

Minimum wall thicknesses (mm)

Nominal outside diameter d, mm	DIN EN/BS EN1452			
	Pipe series S			
	20	16	10	6.3
	SDR			
	41	33	21	13.6
	Nominal Pressure PN based on service (design) coefficient C = 2.5			
	PN6	PN10	PN16	
20	-	-	-	1.5
25	-	-	-	1.9
32	-	-	1.6	2.4
40	-	1.5	1.9	3
50	-	1.6	2.4	3.7
63	-	2	3	4.7
75	-	2.3	3.6	5.6
90	-	2.8	4.3	6.7

Nominal outside diameter d, mm	SDR 41	SDR 26	SDR 13.6
	Nominal Pressure PN based on service (design) coefficient C = 2.0		
	PN 6	PN 10	PN 20
110	2.7	4.2	8.1
125	3.1	4.8	9.2
160	4.0	6.2	11.8
200	4.9	7.7	14.7
225	5.5	8.6	16.6
250	6.2	9.6	18.4
280	6.9	10.7	20.6
315	7.7	12.1	23.2
355	8.7	13.6	26.1
400	9.8	15.3	29.4

Temperature & Pressure Relationship

U-PVC and HI-PVC *

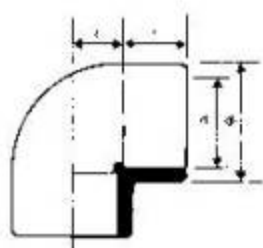
Temperature, in °C	Years of service	Standard Dimension Ratio, SDR					
		34.3		21		13.5	
		PN 6		PN 10		PN 16	
		Allowable Working Pressures, bar					
		PVC-U	PVC-HI1	PVC-U	PVC-HI1	PVC-U	PVC-HI1
10	1	7.9		13.2		21.1	
	5	7.4		12.4		19.8	
	10	7.2		12		19.2	
	25	7.1		11.8		18.9	
	50	7		11.6		18.6	
20	1	7.2		12		19.2	
	5	6.7		11.2		17.9	
	10	6.5		10.8		17.3	
	25	6.2		10.3		16.5	
	50	6		10		16	
30	1	5.8		9.7		15.5	
	5	5.4		9		14.4	
	10	5.3		8.8		14.1	
	25	5		8.3		13.3	
	50	4.8		8		12.8	
40	1	4.6		7.6		12.2	
	5	4.1		6.8		10.9	
	10	4		6.6		10.6	
	25	3.8		6.4		10.2	
	50	3.8		6.3		10.1	
50	1	3.2	4.2	5.3	7	8.5	11.2
	5	2.9	3.7	4.8	6.2	7.7	9.9
	10	2.7	3.6	4.5	6	7.2	9.6
	25	2.5	3.4	4.3	5.7	6.8	9.1
	30	2.5	3.4	4.2	5.6	6.7	9
60	1	2.1	3.5	3.5	5.8	5.6	9.3
	5	1.8	3.2	3	5.3	4.8	8.5
	10	1.7	3.1	2.8	5.1	4.5	8.2
	25	1.5	2.9	2.6	4.8	4.1	7.7
	30	1.5	2.9	2.5	4.8	4	7.7

* HI-PVC - High Impact Modified PVC

**U-PVC Pressure Fittings PN : 16 bar,
DIN 8063, DIN EN/BS EN 1452 / BS EN ISO 1452**

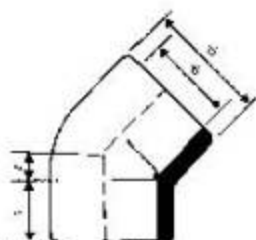
Elbow 90° (GIV)

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	34.5
75	91.0	45.0	38.5
90	108.0	51.0	47.5
110	130.0	61.0	61.0



Elbow 45° (HIV)

d_1	d_2	t	z
20	27.5	16.5	5.5
25	33.3	19.5	6.6
32	41.0	22.5	8.6
40	50.0	26.0	10.0
50	61.0	31.0	13.0
63	75.0	38.0	15.5
75	91.0	45.0	17
90	107	51.0	21.5
110	131	61.5	26



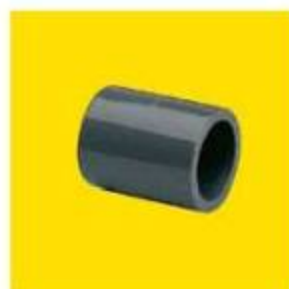
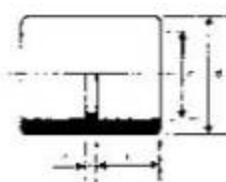
Tee° (TIV)

d_1	d_2	t	z
20	27.5	16.5	10.7
25	33.3	19.5	14.2
32	41.0	22.5	16.5
40	50.0	26.0	22.5
50	61.7	31.0	28.1
63	76.8	38.0	34.5
75	91.0	45.0	38.5
90	109.0	51.0	48.5
110	133.0	61.0	61.0



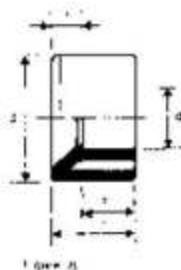
Double Socket (MIV)

d_1	d_2	t	z
20	27.5	16.5	2.5
25	33.3	19.5	3.0
32	40.5	22.5	3.0
40	49.8	26.0	3.0
50	60.8	31.0	3.0
63	74.6	38.0	3.0
75	91.0	44.0	4.0
90	108.0	51.0	38.5
110	131.0	61.0	8.0



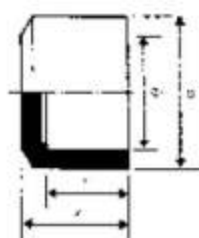
Short Reducing Bushes (DIV)

$d_1 \times d_2$	t_1	t_2	z
25 x 20	19.5	16.5	3.0
32 x 20	22.5	16.5	6.0
32 x 25	22.5	19.5	3.0
40 x 20	26.0	16.5	9.5
40 x 25	26.5	19.5	7.0
40 x 32	26.5	22.5	4.0
50 x 20	31.0	16.0	15.0
50 x 25	31.0	19.0	12.0
50 x 32	31.0	22.5	8.5
50 x 40	31.0	26.0	5.0
63 x 32	38.0	22.5	16.5
63 x 40	38.0	26.0	12.0
63 x 50	38.0	31.0	7.0
75 x 32	45.0	23.0	22.0
75 x 40	45.0	26.5	18.5
75 x 50	45.0	32.3	12.5
75 x 63	45.0	38.5	6.5
90 x 40	61.2	26.5	34.7
90 x 50	61.2	32.1	29.1
90 x 63	61.2	38.5	22.7
90 x 75	61.2	44.0	17.2
110 x 63	61.7	39.2	22.0
110 x 75	61.7	44.8	16.9
110 x 90	61.7	52.0	10.0



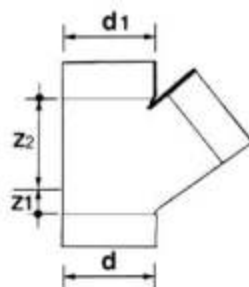
End Cap (CIV)

d_1	d_2	t	z
20	27.6	16.5	3.2
25	33.2	19.5	26.3
32	41.1	22.5	0.85
40	51	26	36
50	62	31	43
63	77	38	51
75	91	45	57
90	110	51	69
110	133	61	85



Tee Branch 45° (YIV)

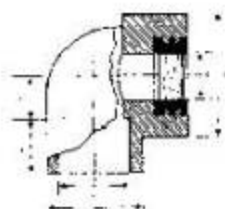
d	d_1	z_1	z_2
50	60	12	65



Elbow 90° Adaptor with Brass Insert

with one socket for solvent welding
and one with metal threads

Code	$d_1 \times d_2$	d_2	t	z
GINV	20 x 1/2"	37.0	16.5	12.5
GRNV	25 x 1/2"	43.0	19.5	15.5
GINV	25 x 3/4"	43.0	19.5	15.5
GRNV	32 x 3/4"	49.0	22.5	17.0
GINV	32 x 1"	49.0	22.5	17.0
GINV	40 x 1 1/4"	59	26	22
GINV	50 x 1 1/2"	70	31	27
GINV	63 x 2"	85	38	33



Tee 90° Adaptor with Brass Insert

with two sockets for solvent welding,
and metal threaded branch

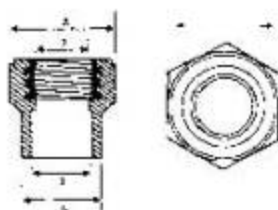
Code	$d_1 \times d_2$	d_2	d_2	t	z
TINV	20 x 1/2"	27.5	37.0	16.5	12.25
TRNV	25 x 1/2"	34.2	43.0	19.5	15.0
TINV	25 x 3/4"	34.2	43.0	19.5	15.0
TRNV	32 x 3/4"	40.5	49.0	22.5	17.5
TINV	32 x 1"	40.5	49.0	22.5	17.5
TINV	40 x 1 1/4"	50	59	26	21.5
TINV	50 x 1 1/2"	61	68	31	27.0
TINV	63 x 2"	75	85	38	33.5



Female Adaptor with Brass Insert

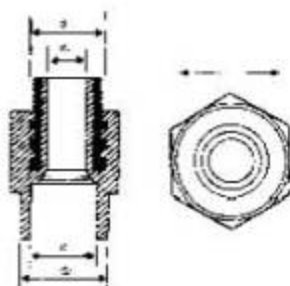
with one socket for solvent welding, and
one female end with metal threads

Code	$d_1 \times d_1'$	d_2	d_2'
MINV	20 x 1/2"	27.6	10.3
MRNV	25 x 1/2"	33.3	46.0
MINV	25 x 3/4"	33.2	46.0
MRNV	32 x 3/4"	40.8	51.0
MINV	32 x 1"	40.8	51.0
MRNV	40 x 1"	50.0	60.7
MINV	40 x 1 1/4"	50.0	60.7
MRNV	50 x 1 1/4"	63.0	70.3
MINV	50 x 1 1/2"	63.0	70.3
MRNV	63 x 1 1/2"	75.0	81.5
MINV	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'
KINV	20 x 1/2"	27.3	10.3
KINV	25 x 3/4"	32.2	15.5
KINV	32 x 1"	40.3	21.0
KRNV	40 x 1"	50.0	20.5
KINV	40 x 1 1/4"	50.0	28.0
KRNV	50 x 1 1/4"	62.9	28.0
KINV	50 x 1 1/2"	62.9	33.3
KRNV	63 x 1 1/2"	74.9	33.5
KINV	63 x 2"	74.9	42.0



Elbow 90° Reduced Female Threaded (GRFV)

with one socket for solvent welding and one with reduced threads.

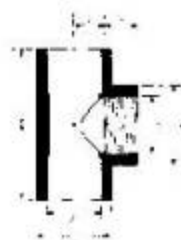
$d_1 \times d_1'$	d_2	d_2'	z	t
25 x 1/2"	33.0	33.0	13.2	19.5



Tee 90° Reduced Female Threaded (TRFV)

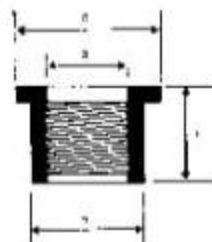
with two sockets for solvent welding and reduced threaded branch

$d_1 \times d_1'$	d_2	d_2'	L_1	z	t
25 x 1/2"	33	33	33	13.2	19.5



Threaded Short Reducer (DIFV)

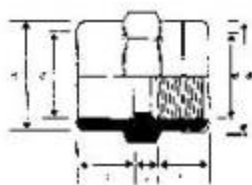
$d_2 \times d_1'$	d_2'	t
25 x 1/2"	33	21



Female Adapter (MIFV)

with one socket for solvent welding,
female end reinforced threads

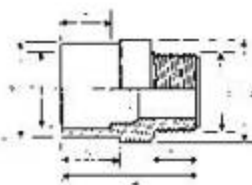
$d_1 \times d_1'$	d_2	d_2'	t_1	t_1'	z
20 x 1/2"	28.0	30.0	16.5	16.0	3.0
25 x 3/4"	34.0	35.0	19.5	18.0	3.0
32 x 1"	42.0	45.0	22.5	20.0	2.5
40 x 1 1/4"	51.0	55.0	26.0	22.0	2.5
50 x 1 1/2"	61.0	62.0	31.0	25.0	3.0
63 x 2"	75.5	75.0	38.0	27.0	3.5



Male Adapter (KIFV)

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	16.5	14.0	16.6	40.0
25	3/4"	33.0	36.0	19.5	16.0	19.0	44.0
32	1"	41.0	46.0	22.5	18.0	21.8	50.0
40	1 1/4"	49.5	54.5	26.0	23.0	24.0	56.5
50	1 1/2"	60.8	64.5	31.0	28.0	24.0	62.0
63	2"	75.0	79.4	38.0	36.0	28.0	75.5
75	2 1/2"	89.7	94.7	44.5	51.5	31.5	94.0
90	3"	109.3	110	51.1	61.5	34	111.8
110	4"	129	129.0	61.5	70.0	39.5	125



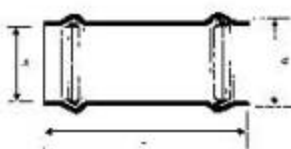
Mono D'Clips (MDC)

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



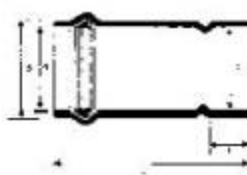
Repair Coupler (KRCZ)

d_1	d_2	L, min.
63	80	280
75	93.9	290
90	110.7	300
110	132.5	320
160	186.0	390
200	227.6	420
225	254.5	430
250	282.6	430



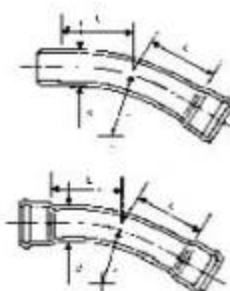
Expansion Coupler (KEJZ)

d ₁	d ₂	L, min.	t
63	80	280	63
75	93.9	290	70
90	110.7	300	80
110	132.5	320	100
160	166.0	390	125
200	227.6	420	150
250	282.6	430	165



Long Radius bends *

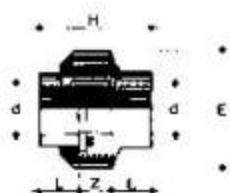
d	w.t.	a	r	L ₁ = L ₂
63	4.7	45°	221	266
63	4.7	90°	221	266
75	5.6	45°	263	304
75	5.6	90°	263	361
90	6.7	45°	315	319
90	6.7	90°	315	427
110	8.2	45°	385	317
110	8.2	90°	385	466
160	11.9	45°	560	452
160	11.9	90°	560	614



Socket Union (BIV)

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



* (1) Bends of other radii available on special order.

* (2) Can be supplied either single or double sockets in solvent cemented or rubber ring joints.

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.



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