

Thermoplast

The first producer of P.V.C-U pipes & fitting In Iran

ترموپلاست



Thermoplast ,A distinguished name In P.V.C-U pipes and fitting Industries In Iran

• About Us :

Thermoplast manufacturing Company has been established in 1974 in Tabriz .

Capital city of Azarbayjan province. Thermoplast is the first PVC-U pipes & fittings

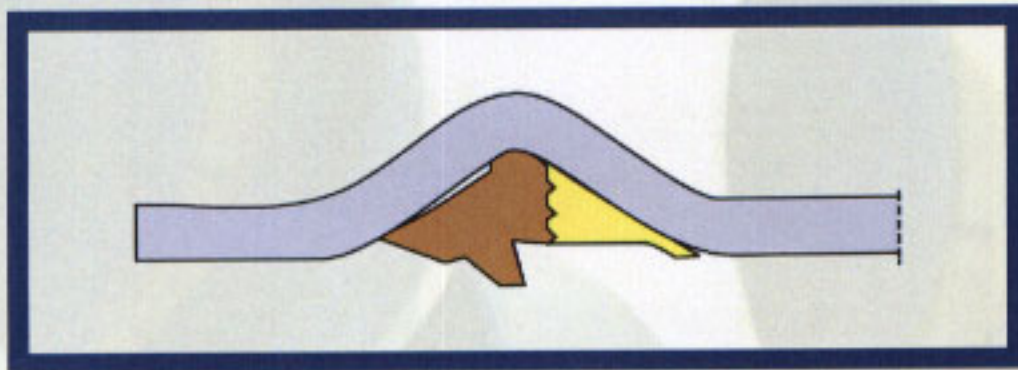
Producer in North West of Iran. Due to the traditional and habitual of the region ,

Thermoplast was considering as one of the most practical operative efficient factor

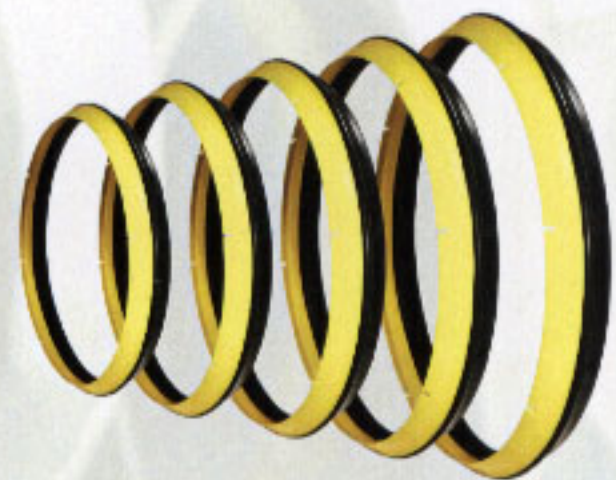
In promoting of industrial, agriculture, and development projects of the region .



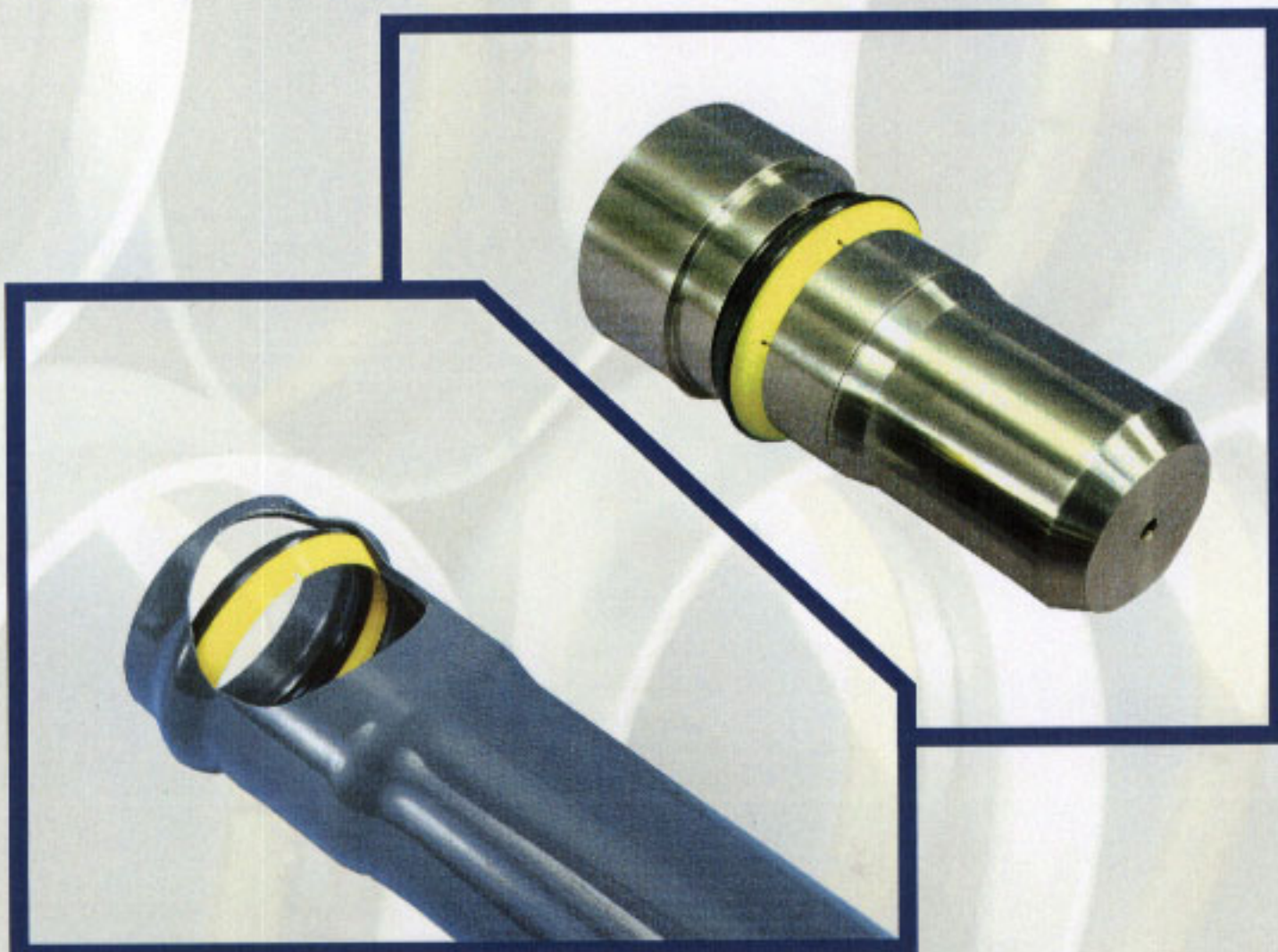
Thermoplast Co has honored to offer the best quality high pressure power lock O-RING system PVC-U PIPES to engineer adviser, governmental organization, and private. Thermoplast Co, purchased and transferred push fit PVC-U pipes and fittings Modern technology and know-how from advanced reliable European Company. Thermoplast now is manufacturing sewage push fit pipes (rubbering) and fittings in Iran. The quality of our products is more confidence and apply to European standard. Thermoplast is purchasing high quality seals with PE ring (reinforced seals) from Reliable European companies. Now our recommendation to all engineers and construction companies are to use our products with 100% confidence.



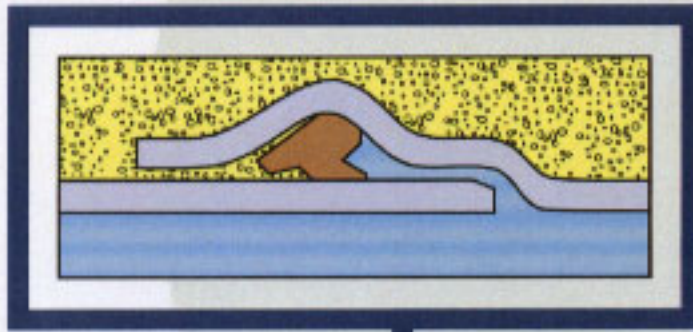
Sealing element The flexible EPDM section is Designed with a combined compression and lip Seal action on both spigot and socket for maximum Joint Security.



Reinforcement element the PP reinforcement bonded to the EPDM section, holds the seal firmly in place.

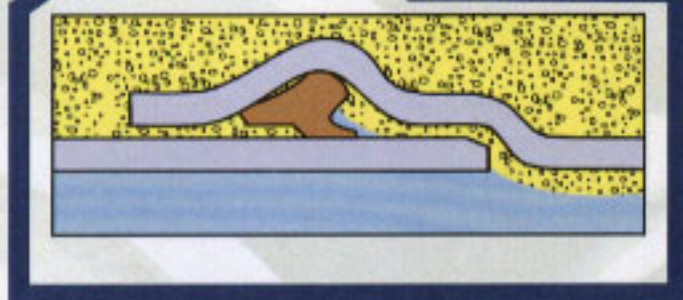
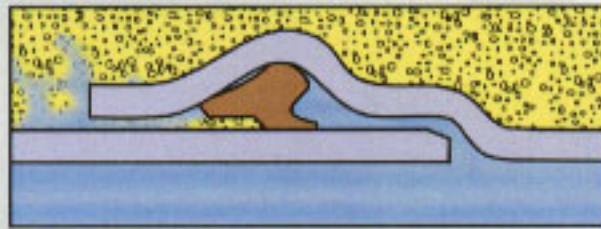


Traditional Seals Under Test

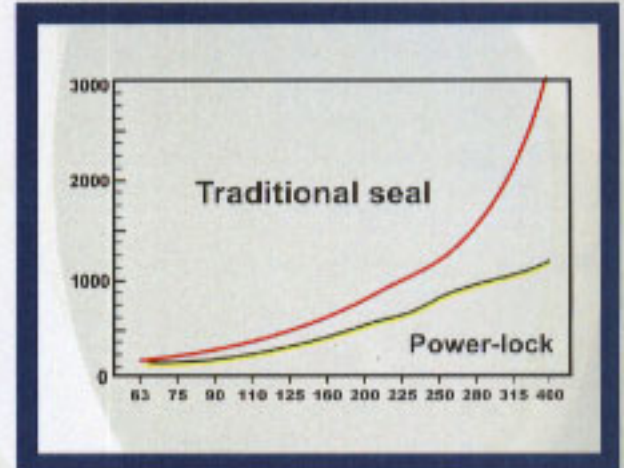


Pulsation test with conventional seal under negative pressure .
After several pulsations sand ingress starts to wear the seal .

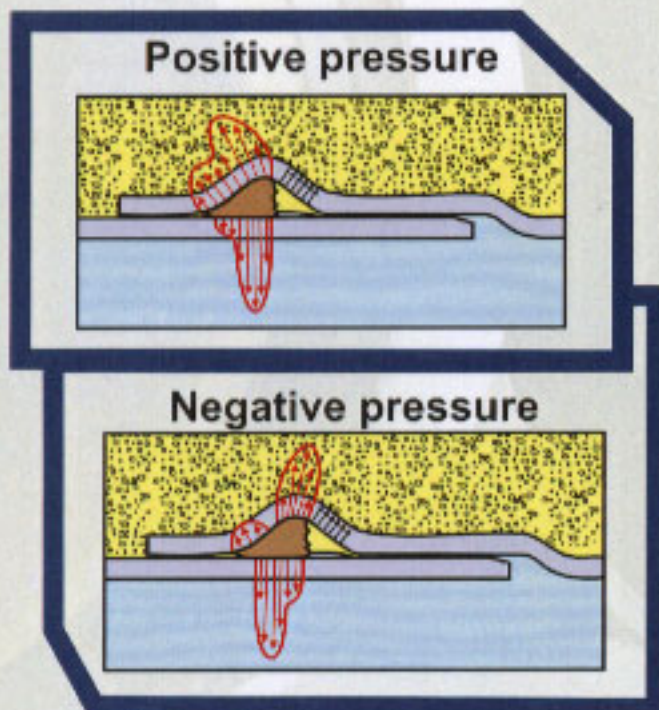
Under positive pressure, after approximately 500 pulsations , water leakage occurs.



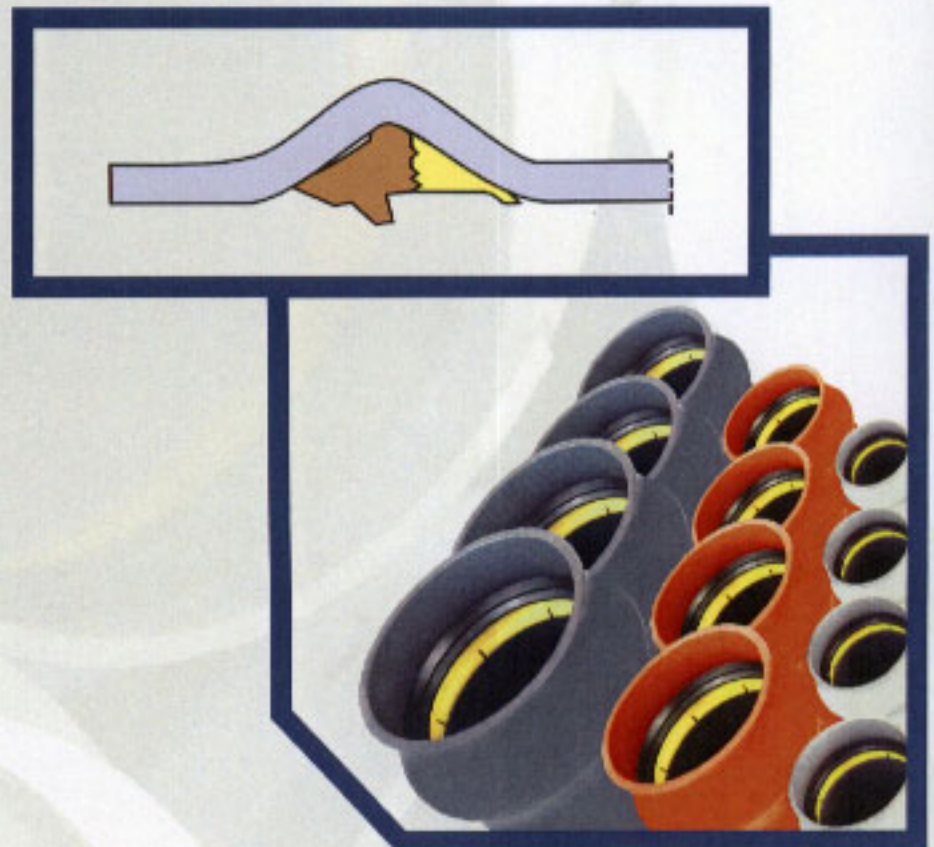
Under negative pressure, after approximately 500 pulsations , contamination enters the pipe .



Scientific Research According To ISO-9001



Thermoplast Power Lock Seal Performance



Power-Lock's ingenious design and pipe belling method make it equally effective under positive and negative pressure.

- 1- Under positive pressure the rubber section is pressed forward, giving a still more effective seal. The higher, the pressure the sealing force.
- 2- Under negative pressure the rubber section is pressed backwards. It expands radially and seals effectively against both the spigot. The sealing action of the front rubber edge prevents sand from entering the seal.
- 3- Under both positive and negative pressure the plastic reinforcement, pre-tensioned by the pipe during the belling operation, holds the seal firmly in correct position.

• Belling process push fit pressure pipes by Thermoplast Company

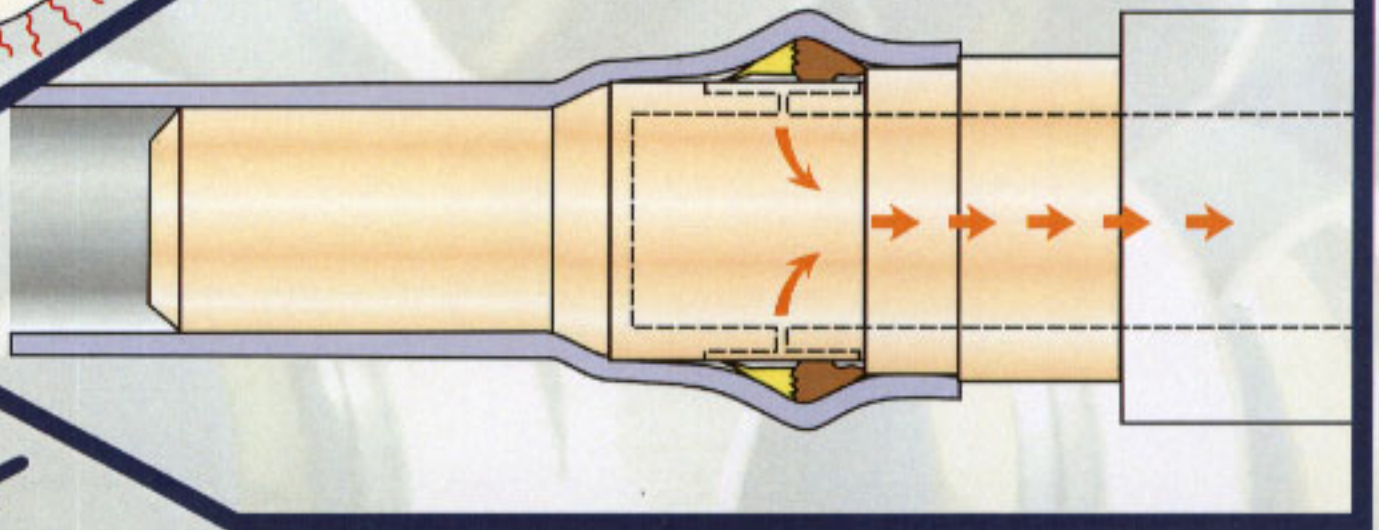
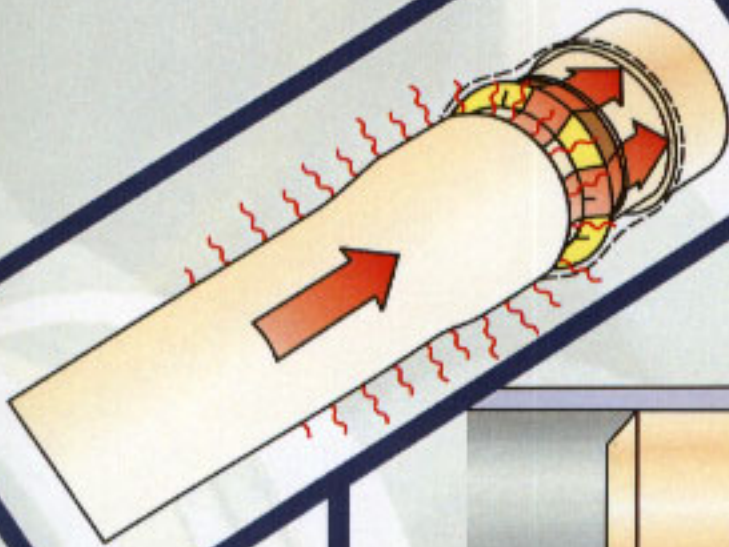


Power Lock System:

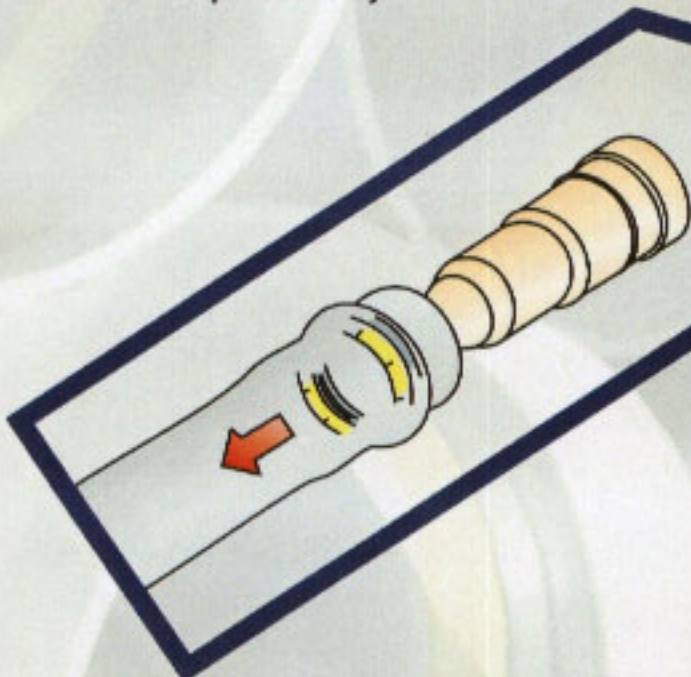
- Brings economy in production.
- Simplified belling brings increased productivity.
- State-of-the-art technology guarantees quality.
- Tooling is simple and reliable.



- The soft pipe end is pushed over the forming mandrel. The smooth design allows the pipe to slide easily over the mandrel and the sealing ring. To ensure ease of pipe movement and to avoid any possibility of rippling of the pipe wall, the mandrel is heated.

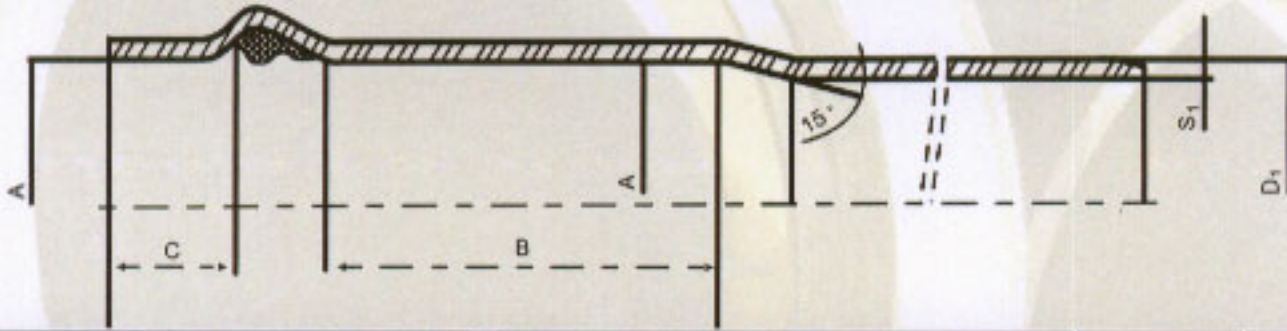


- Vacuum is applied via ducts in the mandrel. The soft pipe is drawn over the seal and clings to its contours. The pipe is formed tightly around the seal, pretensioning the socket against the rigid reinforcement. An external pressure system can be used instead of vacuum, if required.



The forming mandrel is with drawn from the finished socket and the Power Lock seal is held firmly in place by the rigid reinforcement.

- Thermoplast push fit power lock high Pressure for sewage & water distribution apply for towers & high buildings



D1	S1							A	B	C
	Pn2.b	Pn4	Pn5	Pn6	Pn8	Pn10	Pn16			
50 .02				1.8 .04	2.0 .04	2.4 .05	3.7 .06	50.4 .05	62	22
63 .02		1.8 .04	1.8 .04	1.9 .04	2.5 .05	3.0 .05	4.7 .07	63.5 .05	65	23
75 .03		1.8 .04	1.9 .04	2.2 .05	2.9 .05	3.6 .06	5.6 .08	75.5 .05	68	24
90 .03		1.8 .04	2.2 .05	2.7 .05	3.5 .06	4.3 .07	6.7 .09	90.5 .06	71	25
110 .03	1.8 .06	2.2 .05	2.7 .05	3.2 .06	4.3 .07	5.3 .08	8.2 .11	110.7 .07	75	27
125 .03	1.8 .06	2.5 .05	3.1 .06	3.7 .06	4.8 .07	6.0 .08	9.3 .12	125.7 .07	78	29
140 .04	1.8 .06	2.8 .05	3.5 .06	4.1 .07	5.4 .08	6.7 .09	10.4 .13	140.7 .08	81	31
160 .04	2.0 .06	3.2 .06	4.0 .06	4.7 .07	6.2 .09	7.7 .10	11.9 .14	160.8 .09	86	34
200 .04	2.5 .05	4.0 .06	4.9 .07	5.9 .08	7.7 .10	9.6 .11	14.9 .17	201.0 .09	94	38
225 .05	2.8 .05	4.5 .07	5.5 .08	6.6 .09	8.7 .11	10.8 .13	16.7 .18	226.0 .09	100	41
250 .05	3.1 .06	4.9 .07	6.2 .09	7.3 .10	9.7 .12	11.9 .14	18.6 .21	251.1 .10	106	45
280 .06	3.5 .06	5.5 .08	6.9 .09	8.2 .11	10.8 .13	13.4 .16	20.8 .23	281.2 .11	112	49
315 .06	3.9 .06	6.2 .09	7.7 .10	9.2 .12	12.2 .14	15.0 .17	23.4 .26	316.3 .12	118	53
355 .07	4.4 .07	7.0 .09	8.7 .11	10.4 .13	13.7 .16	16.9 .19	26.3 .29	357.0 .13	124	57
400 .07	5.0 .07	7.9 .10	9.8 .12	11.7 .14	15.4 .18	19.1 .22	29.7 .32	402.2 .15	130	60
450 .08	5.6 .08	8.9 .11	11.0 .13	13.2 .16	17.3 .20	21.5 .24		452.5 .17	138	67
500 .09	6.2 .09	9.8 .12	12.3 .15	14.6 .17	19.3 .22	23.2 .26		502.6 .19	145	74
630 .10	7.8 .10	12.4 .15	15.4 .16	18.4 .21	24.1 .26	30.0 .32		633.1 .23	167	82



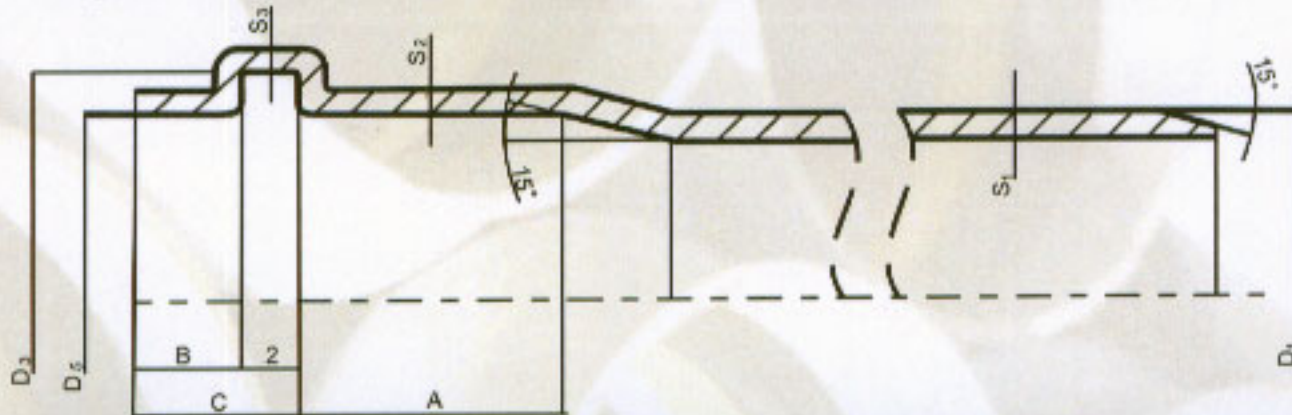
Standard specification of Power Lock for PVC-U PIPES
Application: sewer pipes high rise buildings any public housing.

Unplasticized Poly Vinyl Chloride P.V.C-U

- BSI-EN 681-2 (Material Requirements)
- EN 1329-1 (Specification For Pipe Fittings System)
- EN 1989 (Long Term Performance)
- EN 1053 (Water Tightness)
- EN 1054 (Air Tightness)
- EN 1055 (Elevated Temperature Cycling)
- EN 1277 (Tightness Of Sealing Ring Joint)



• Din Lock System With Rubbering For Low And Middle Pressure Table



DN	D1	Dsm	D3	B min	F min	F max	A min	C max
	32 .02	32.3 .04	39.8 .09	5.0	6.5	8.3	17	18
40	40 .02	40.3 .04	49.6 .10	5.0	7.8	9.6	18	18
50	50 .02	50.3 .04	59.6 .10	5.0	7.8	9.6	20	18
63	63 .02	63.3 .04	72.4 .10	5.0	7.8	9.6	23	18
75	75 .03	75.4 .04	84.5 .10	5.0	7.8	9.6	25	18
	80 .03	80.4 .05	89.5 .10	5.0	7.8	9.6	26	18
90	90 .03	90.4 .05	99.5 .10	5.0	7.8	9.6	28	20
	100 .03	100.4 .05	110.6 .10	6.0	9.1	11.1	30	22
110	110 .03	110.4 .05	120.3 .10	6.0	9.1	11.1	32	26
125	125 .04	125.4 .05	137.1 .11	7.0	10.4	12.6	35	26
	140 .04	140.5 .05	152.6 .12	8.0	10.4	12.6	38	29
160	160 .04	160.5 .06	173.8 .12	9.0	11.7	14.1	42	32
200	200 .05	200.6 .07	215.6 .14	12.0	13.0	15.8	50	40
	225 .05	225.6 .07	247.9 .15	16.0		22.0	52	62

Non Perssure Application Joint With Rubber Seal Underground Drainage And Sewerage

Din Lock Pipes Standards
Used For Low pressure And Sewage
And Underground Piping

• Unplasticized Poly Vinyl Chloride P.V.C-U

- BSI-EN 681-2 (Material Requirements)
- EN 1401-1 (Specification For Pipe Fittings System)
- EN 1989 (Long Term Performance)
- EN 1277 (Tightness Of Realing Ring Joint)
- EN 1055 (Elevated Temperature Cycling)



◦ List Of High Pressure Power-Lock Pipes Weight , For Towers And High Buildings

List Of Power-Lock Pipes

Pressure Atm	Use Specification (Resistance pressure)	Weight Of 6 Metr With DIN German Standard white color	Weight Of 6 Metr With Iranian Standard Gray color	Thickness & External Diameter (mm-mm)	Size (In)
10	Medium Pressure	5/100	4/800	63x3	2
16	High Pressure	7/700	7/200	63x4/7	2
6	Medium Pressure	4/700	4/400	75x2/2	2,1/2
10	High Pressure	7/300	6/800	75x3/6	2,1/2
6	Medium Pressure	6/800	6/300	90x2/7	3
10	High Pressure	10/500	9/700	90x4/3	3
6	Medium Pressure	9/800	9/100	110x3/2	4
10	High Pressure	15/600	14/400	110x5/3	4
6	Medium Pressure	12/800	11/800	125x3/7	5
10	High Pressure	20/050	18/500	125x6	5
6	Medium Pressure	20/600	19/000	160x4/7	6
10	High Pressure	32/800	30/200	160x7/7	6
6	Medium Pressure	32/200	29/700	200x5/9	8
10	High Pressure	51/000	47/000	200x9/6	8
4	Sewage	33/900	31/200	250x4/9	10
6	Medium Pressure	49/850	45/900	250x7/3	10
10	High Pressure	79/200	72/900	250x11/9	10
4	Sewage	54/100	49/800	315x6/2	12
6	Medium Pressure	79/200	72/900	315x9/2	12
10	High Pressure	125/400	115/400	315x15	12
4	Sewage	87/000	80/000	400x7/9	16
6	Medium Pressure	126/600	116/500	400x11/7	16
10	High Pressure	202/000	186/000	400x19/1	16

List Of Pipes P.V.C-U Fitting With Rubbering

Use Specification (Resistance pressure)	Weight Of 6 Metr With DIN German Standard white color	Weight Of 6 Metr With Iranian Standard White color	Thickness & External Diameter (mm-mm)	Size (In)
Sewage	1/600	1/500	32x1/8	1
Medium Pressure	2/050	1/900	32x2/4	1
Sewage	2/000	1/900	40x1/8	1,1/4
Medium Pressure	3/150	2/900	40x3	1,1/4
Sewage	2/500	2/400	50x1/8	1,1/2
Medium Pressure	3/300	3/100	50x2/4	1,1/2
Sewage	3/350	3/100	63x1/9	2
Medium Pressure	5/100	4/800	63x3	2
Sewage	3/850	3/600	75x1/8	2,1/2
Medium Pressure	4/700	4/400	75x2/2	2,1/2
Sewage	4/650	4/300	90x1/8	3
Medium Pressure	6/800	6/300	90x2/7	3
Sewage	6/900	6/400	110x2/2	4
Medium Pressure	9/800	9/100	110x3/2	4
Sewage	8/900	8/200	125x2/5	5
Medium Pressure	12/800	11/800	125x3/7	5
Sewage	14/450	13/300	160x3/2	6
Medium Pressure	20/600	19/000	160x4/7	6
Sewage	22/200	20/500	200x4	8
Medium Pressure	32/200	29/700	200x5/9	8

o List Of Push Fit P.V.C-U Fitting With Rubbering



Use Specification (Resistance pressure)	External Diameter (mm)	Type Of Product
Sewage	125	90° knee-joints
Sewage	160	
Medium pressure	50	
Medium pressure	63	
Medium pressure	75	
Medium pressure	90	
Medium pressure	110	
Medium pressure	160	45° knee-joints
Medium pressure	50	
Medium pressure	63	
Medium pressure	75	
Medium pressure	90	
Medium pressure	110	
Medium pressure	50	90° T-joints
Medium pressure	63	
Medium pressure	75	
Medium pressure	90	
Medium pressure	110	
Sewage	160	
Medium pressure	50	45° T-joints
Medium pressure	63	
Medium pressure	75	
Medium pressure	90	
Medium pressure	110	
Medium pressure	160	
Medium pressure	110x63	90° T-joints convertors
Medium pressure	110x90	
Medium pressure	90x63	
Sewage	160x110	45° T-joints convertors
Medium pressure	90x63	
Medium pressure	110x63	
Medium pressure	160x110	Siphon
Medium pressure	63	
Medium pressure	110	
Sewage	110x63	Convertors
Sewage	125x90	
Sewage	125x110	
Medium pressure	160x110	
Medium pressure	160x125	
Medium pressure	200x160	
Medium pressure	110x110	
Medium pressure	50	Inspection hatch & Mono-way valve
Medium pressure	63	
Medium pressure	75	
Medium pressure	90	
Medium pressure	110	
Medium pressure	125	
Medium pressure	160	
Medium pressure	200	
Medium pressure	50	two-sided coupling
Medium pressure	63	
Medium pressure	75	
Medium pressure	90	
Medium pressure	110	
Medium pressure	125	
Medium pressure	160	
Medium pressure	200	



• Fitting Of Sewage System By Normal P.V.C Solvent Cement (glue)



Use Specification	External Diameter (mm)	Type Of Product
Sewage	40	90° sewageknee-joints
Sewage	50	
Sewage	63	
Sewage	90	
Sewage	110	
Sewage	125	
Sewage	160	
Medium Pressure	63	90° medium pressure knee-joints
Medium Pressure	75	
Medium Pressure	90	
Medium Pressure	110	
Medium Pressure	160	
High Pressure	40 Ribbed one-sided	90° high pressure knee-joints
High Pressure	63 Ribbed one-sided	
High Pressure	110 two-sided coupling	
High Pressure	63	
Sewage	63	45° sewage knee-joints
Medium Pressure	63	45° medium pressure knee-joints
Medium Pressure	90	
Medium Pressure	110	
Medium Pressure	160	
Medium Pressure	63	
Sewage	90	90° sewage T-joints
Sewage	110	
Sewage	160	
Medium Pressure	63	90° Medium pressure T-joints
High Pressure	50	90° high pressure T-joints
High Pressure	63	
High Pressure	110	
Medium Pressure	63	45° medium pressure T-joints
Medium Pressure	90	
Medium Pressure	110	
Medium Pressure	160	
Medium Pressure	110x63	
Medium Pressure	110x90	90° medium pressure T-joints convertors
Medium Pressure	90x63	
Medium Pressure	160x110	
Sewage	110x63	90° sewage T-joints convertors
Sewage	90x63	45° sewage T-joints convertors
Medium Pressure	110x63	45° medium pressure T-joints convertors
Medium Pressure	110x160	
Sewage	63	
Medium Pressure	63	Sewage siphon
Medium Pressure	110 Short	medium pressure siphon
Medium Pressure	110 Long	
Medium Pressure	110x63	
Sewage	125x110	Sewage convertors
Sewage	160x110	
Sewage	125x75	
Medium Pressure	125x90	medium pressure convertor
Medium Pressure	160x125	
Medium Pressure	200x160	
Medium Pressure	110x110	
High Pressure	40	
High Pressure	63	High pressure Ribbed one-sided coupling
High Pressure	90	
High Pressure	110	
High Pressure	110	
Sewage	63	Cap
Sewage	90	
Sewage	110	



• Adhesive Standard Pipe Table

Specifications Of Resistance Pressure	Weight(Kg)	Thickness & External Diameter (mm-mm)	Size(In)
High Pressure	1	20x2/3	1/2
Sewage	1	25x1/5	3/4
Medium Pressure	1/2	25x1/9	3/4
High Pressure	1/7	25x2/8	3/4
Sewage	1/5	32x1/8	1
Medium Pressure	1/9	32x2/4	1
High Pressure	2/7	32x3/6	1
Sewage	1/9	40x1/8	1 1/4
Medium Pressure	2/9	40x3	1 1/4
High Pressure	4/2	40x4/5	1 1/4
Sewage	2/4	50x1/8	1 1/2
Medium Pressure	3/1	50x2/4	1 1/2
High Pressure	4/5	50x3/7	1 1/2
Max High Pressure	6/4	50x5/6	1 1/2
Sewage	3/1	63x1/9	2
Medium Pressure	4/8	63x3	2
High Pressure	7/2	63x4/7	2
Max High Pressure	10/1	63x7	2
Sewage	3/6	75x1/8	2 1/2
Medium Pressure	4/4	75x2/2	2 1/2
High Pressure	6/8	75x3/6	2 1/2
Sewage	4/3	90x1/8	3
Medium Pressure	6/3	90x2/7	3
High Pressure	9/7	90x4/3	3
Max High Pressure	14/4	90x6/7	3
Sewage	6/4	110x2/2	4
Medium Pressure	9/1	110x3/2	4
High Pressure	14/4	110x5/3	4
Max High Pressure	21/5	110x8/2	4
Sewage	8/2	125x2/5	5
Medium Pressure	11/8	125x3/7	5
High Pressure	18/5	125x6	5
Max High Pressure	27/8	125x9/3	5
Sewage	13/3	160x3/2	6
Medium Pressure	19/1	160x4/7	6
High Pressure	30/2	160x7/7	6
Max High Pressure	45/1	160x11/9	6
Sewage	20/5	200x4	8
Medium Pressure	29/7	200x5/9	8
High Pressure	47	200x9/6	8
Sewage	31/2	250x4/9	10
Medium Pressure	45/9	250x7/3	10
High Pressure	72/9	250x11/9	10
Sewage	49/8	315x6/2	12
Medium Pressure	72/9	315x9/2	12
High Pressure	115/4	315x15	12
Sewage	80	400x7/9	14
Medium Pressure	116/5	400x11/7	14
High Pressure	186	400x19/1	14



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