

Physical Properties of Aquadex Pressure Pipes at 20°C

Technical Terms	Typical Value	Unit
Density	1350 ~ 1460	kg/m ³
Modulus of elasticity at 20°C	30,000	kgf/cm ²
Tensile strength at 23°C	450 - 600	kgf/cm ²
Specific heat at 20°C	0.24	Cal/gm/°C
Vicat softening point	85	°C
Thermal conductivity	0.12 ~ 0.14	Cal m/m ² h°C
Coefficient of linear thermal expansion	7-8 x10 ⁻³	mm/m/°C
Inflammability	do not support combustion	

PVC-U Fitting and Valves

Dadex offers complete range of finest quality injection molded fittings such as Bends, Tees, Couplers, Threaded Adapters, Reducers and PVC-U Flanges and Valves, these fittings are imported and conforms to BS EN 1452-1, BS 3505 and BS 4346 Part 1.

Dimensions of these fittings are compatible with Dadex Aquadex pipes. Fabricated fittings can also be available according to the demand of customers (depending upon production capability).

PVC-U Injection Moulded Fittings



Fields of Application

- Infrastructure Water/Potable Water & Fire-Ring Mains
- Infrastructure Sewer Mains/Pumped or Gravity Flow
- Drainage Installation/Domestic or Industrial
- Industrial Pipelines
- Slurry Lines and Effluent Lines
- Chemical Plant Installations
- Live Stock Whey Feed Pipes
- Water Aeration Plant
- Power Station Chlorination Plant
- Power Station Screening Plant Pipelines
- Paper Mill Installations: For Alum and Pulp Carrying
- Chilled Water Lines for Refrigeration
- Air Conditioning Plant/Cooling Tower
- Coal Washing plant
- Agriculture & Irrigation

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PVC-U PRESSURE PIPE SYSTEM



SYSTEM FOR COLD POTABLE WATER SUPPLY
PIPELINES AND VARIOUS OTHER APPLICATIONS



Introduction

Dadex has been manufacturing unplasticized Polyvinylchloride (PVC-U) pressure pipes since 1991. Dadex has been collaboratively working with experts from world's largest & leading thermoplastic pipe manufacturer. Dadex has state of the art manufacturing equipment for PVC-U pressure pipes production conforming to Pakistan Standard PS 3051:2012 which is adaptation of British Standard BS 3505 & BS EN 1452.

Material

Unplasticised Polyvinyl Chloride (PVC-U).
Dadex Aquadex pipes and fittings are grey in colour.

Product Range

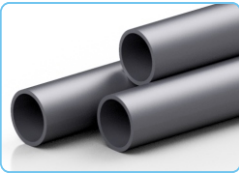
Aquadex PVC-U pressure pipes are available in nominal diameters of 3/4", 1" 1¼", 1½", 2", 2 ½", 3", 4", 6", 8", 10", 12", 14" and 16" in standard length of 4m and 6m.

Standards and Quality Assurance

Aquadex PVC-U pressure pipes comply with relevant national & international standards. Dadex has its own in-house testing laboratory which is equipped with latest testing equipment to ensure products quality.

Laboratory testing of Aquadex PVC-U pressure Pipes is carried out as per PS 3051: 2012, BS 3505, BS EN 1452. The testing scheme include following tests:

- Visual Inspection
- Dimensional Analysis
- Resistance to Methylene Chloride Test
- Impact Resistance Test
- Longitudinal Heat Reversion Test
- Resistance to Delamination
- Short Term Hydrostatic Pressure Test
- Vicat Softening Test (Type test)



Advantages

Aquadex PVC-U pressure pipes are safe for cold potable water distribution and transmission systems, and can also be used for transportation of certain chemicals, however for special application Dadex Technical Dept should be contacted. The material does not support any microbial growth and prevent contamination of water. The non-corrosive nature of material and leak proof joints limits the tendency of mixing suspended particles and other contaminants, thus ensures risk-free distribution of water.



RATED PRESSURE*		
Class	bar / kgf/cm2	lbf / in²
B	6	87
C	9	130
D	12	173
E	15	217

*Designer has to consider factor of safety while designing system's working pressure. Magnitude of field pressure test is 1.5 times the actual working pressure of pipe line. (1 bar = 10.2 m head of water = 0.1 Mpa)

Pipe Dimensions for Classes B, C, D and E (PS 3051 & BS 3505)														
Nominal Size	Mean Outside Diameter		Class B (6.0 bar)			Class C (9.0 bar)			Class D (12.0 bar)			Class E (15.0 bar)		
			Avg. Value	Individual Value		Avg. Value	Individual Value		Avg. Value	Individual Value		Avg. Value	Individual Value	
	min.	max.	max.	min.	max.	max.	min.	max.	max.	min.	max.	max.	min.	max.
Inch	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm
*3/8	17.0	17.3	-	-	-	-	-	-	-	-	-	1.9	1.5	1.9
1/2	21.2	21.5	-	-	-	-	-	-	-	-	-	2.1	1.7	2.1
3/4	26.6	26.9	-	-	-	-	-	-	-	-	-	2.5	1.9	2.5
1	33.4	33.7	-	-	-	-	-	-	-	-	-	2.7	2.2	2.7
1 1/4	42.1	42.4	-	-	-	-	-	-	2.7	2.2	2.7	3.2	2.7	3.2
1 1/2	48.1	48.4	-	-	-	-	-	-	3.0	2.5	3.0	3.7	3.1	3.7
2	60.2	60.5	-	-	-	3.0	2.5	3.0	3.7	3.1	3.7	4.5	3.9	4.5
*2 1/2	75.0	75.3	-	-	-	3.5	3.0	3.5	4.5	3.9	4.5	5.5	4.8	5.5
3	88.7	89.1	3.4	2.9	3.4	4.1	3.5	4.1	5.3	4.6	5.3	6.5	5.7	6.6
4	114.1	114.5	4.0	3.4	4.0	5.2	4.5	5.2	6.8	6.0	6.9	8.3	7.3	8.4
*5	140.0	140.4	4.4	3.8	4.4	6.3	5.5	6.4	8.3	7.3	8.4	10.1	9.0	10.4
6	168.0	168.5	5.2	4.5	5.2	7.5	6.6	7.6	9.9	8.8	10.2	12.1	10.8	12.5
*7	193.5	194.0	6.0	5.2	6.0	8.7	7.7	8.9	11.4	10.1	11.7	13.9	12.4	14.3
8	218.8	219.4	6.1	5.3	6.1	8.8	7.8	9.0	11.6	10.3	11.9	14.1	12.6	14.5
*9	244.1	244.8	6.7	5.9	6.8	9.8	8.7	10.0	12.9	11.5	13.3	15.8	14.1	16.3
10	272.6	273.4	7.5	6.6	7.6	10.9	9.7	11.2	14.3	12.8	14.8	17.5	15.7	18.1
12	323.4	324.3	8.8	7.8	9.0	12.9	11.5	13.3	17.0	15.2	17.5	20.8	18.7	21.6
14	355.0	356.0	9.6	8.5	9.8	14.1	12.6	14.5	18.6	16.7	19.2	22.8	20.5	23.6
16	405.9	406.9	10.9	9.7	11.2	16.2	14.5	16.7	21.1	19.0	21.9	26.0	23.4	27.0
18	456.7	457.7	12.3	11.0	12.7	18.2	16.3	18.8	23.8	21.4	24.6	-	-	-
20	507.5	508.5	13.7	12.2	14.1	20.2	18.1	20.9	-	-	-	-	-	-
22	558.3	559.3	15.0	13.4	15.5	22.1	19.9	22.9	-	-	-	-	-	-
24	609.1	610.1	16.3	14.6	16.8	24.1	21.7	25.0	-	-	-	-	-	-

- Pipes are normally manufactured with socket at one end (to suit either Solvent-Cement or Z-joint system); however pipe with both ends plain can also be available.
* Pipe to these nominal sizes are not normally available from stock.
- Pipe lengths: 4m and 6m.