ASTM F-441 SCH-40

Nomainal Size Inches	OD (d) mm		Thickness (s) mm		Weight kg /m		PRESSURE
	min	max	min	max	min	max	(PSI)
1/2	21.30	3.28	2.77	3.28	0.25	0.29	600
3/4	26.70	3.38	2.87	3.38	0.32	0.37	480
1	33.40	3.89	3.38	3.89	0.48	0.54	450
1-1/4	42.20	4.07	3.56	4.07	0.65	0.73	370
1-1/2	48.30	4.19	3.68	4.19	0.78	0.96	330
2	60.30	4.42	3.91	4.42	1.04	1.17	280
2-1/2	73.00	5.77	5.16	5.77	1.66	1.83	300
3	88.90	6.15	5.49	6.15	2.18	2.42	260
4	114.30	6.73	6.02	6.73	3.13	3.47	220
5	141.30	7.34	6.55	7.34	4.23	4.70	190
6	168.30	7.97	7.11	7.97	5.49	6.11	180
8	219.10	9.17	8.18	9.17	8.14	9.08	160
10	273.10	10.39	9.27	10.39	11.55	12.89	140
12	323.90	11.55	10.31	11.55	15.35	17.11	130

ASTM F-441 SCH-80

Nomainal Size Inches	OD (d) mm		Thickness (s) mm		Weight kg /m		PRESSURE
	min	max	min	max	min	max	(PSI)
1/2	21.30	21.40	3.73	4.24	0.31	0.32	850
3/4	26.70	26.80	3.91	4.42	0.42	0.46	690
1	33.40	33.53	4.55	5.08	0.62	0.68	630
1-1/4	42.20	42.33	4.85	5.43	0.85	0.94	520
1-1/2	48.30	48.45	5.08	5.69	1.03	1.14	470
2	60.30	60.45	5.54	6.20	1.43	1.58	400
2-1/2	73.00	73.18	7.01	7.85	2.18	2.41	420
3	88.90	89.10	7.62	8.53	2.92	3.23	370
4	114.30	114.50	8.56	9.58	4.27	4.74	320
5	141.30	141.60	9.52	10.66	5.92	6.57	290
6	168.30	168.60	10.97	12.29	8.14	9.00	280
8	219.10	219.50	12.70	14.22	12.35	13.73	250
10	273.10	273.50	15.06	16.86	18.31	20.36	230
12	323.90	324.30	17.47	19.55	25.21	28.00	230



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ABSOLUTELY COMPLETE SYSTEM www.pakarab.net

INTRODUCTION

Zaka Sons is the pioneer company to produce quality CPVC pipes in Pakistan under its brand name "PAK ARAB", and is a licensed manufacture of a leading European company that produces and sells CPVC compounds.

CPVC pipes and fittings are based on advanced polymer chemistry, made from a special plastic chemically known as chlorinated polyvinyl chloride (CPVC). This innovation is the result of new technology that ensures increased product toughness year round. **PAKARAB** CPVC system design and standards incorporate significant engineering safety factors, which should translate to a long service life.

PAKARAB hot and cold water distribution (HCWD) systems are assembled with readily available, simple and inexpensive tools (chamfering tool and ratchet cutter only). Solvent cemented joints – proven with more than 40 years of successful service history of trouble free performance assure the reliability of a plumbing system. Notable qualities of CPVC piping includes it is not susceptible to corrosion, electrolysis or scale build-up in areas where water, soil and atmospheric conditions are aggressive.

APPLICATION

CPVC plumbing systems made from superior quality CPVC are used for hot & cold potable water in high-rise application, apartment buildings, hotels/motels and commercial installations and also for single and multi-family houses. For hot water lines CPVC pipes and fittings supply water at higher temperature up to 93°C.

Energy efficiency – superior heat retention saves money on hot water heating costs. **Reduced condensation** – virtually eliminates condensation also reduces the risk of costly drip damage to your walls, structure and contents.

Quiet operation – provides quieter water flow and virtually eliminates the "banging" from water hammer.

CPVC FEATURES AND BENEFITS

Resists scale build – up and corrosion resistance CPVC pipes and fittings never corrode pit or scale like metal pipes do. Hence, no scale build-up means no water pressure loss and reduced maintenance.

EXCELLENT CHEMICAL RESISTANCE

CPVC pipes and fittings exhibit excellent chemical resistance against salts, strong acids, weak acids bases, and strong bases. It also provides good resistance against aliphatic solutions. Fair resistance against strong oxidants, and halogens.

RESISTANCE TO ULTRA VIOLET (UV) EXPOSURE

UV does not break down the polymer chains to any significant extent, limited to a surface discoloration effect. There is no significant loss in stress bearing capability, maintenance.

EXCELLENT CHEMICAL RESISTANCE

CPVC pipes and fittings exhibit excellent chemical resistance against salts, strong acids, weak acids and bases, and strong bases. Also gives good resistance against aliphatic solutions. Fair resistance against strong oxidants, and halogens.



TOUGH AND RIGID MATERIAL

- CPVC has a much higher strength/modulus than other thermoplastics used in plumbing applications.
- Need less hangers and supports.

EASY & COST EFFECTIVE INSTALLATION

CPVC uses a simple, solvent cement jointing method. Installation is easy in tight, confined or inaccessible places. Fittings are also made from CPVC avoiding the need for alternative materials (e.g. expensive brass fittings used with some alternative systems). The basic installation procedure is the same as that for PVC-known and used by virtually all plumbers. No need for electrical source.

OUTSTANDING FIRE PERFORMANCE CHARACTERISTICS

CPVC pipes and fittings have outstanding fire performance characteristics such as a low flame spread, low smoke generation, self-extinguishing, and no flaming and no flaming drips.

FIRE SAFETY

CPVC has a limiting Oxygen index (LOI) of 60, thus in air CPVC does not support combustion. No flaming drips decrease the fire load, low flame spread and low smoke generation.

REDUCE ADDITIVE MIGRATION INTO WATER SUPPLY

CPVC does not contribute to bad odour and taste problems in conveyance of water.

UNAFFECTED BY CHLORINE IN WATER SUPPLY

Unaffected by the impact of chlorine in water supply, as such there is no breakdown of pipe in service.

LOWER THERMAL CONDUCTIVITY

CPVC has a lower thermal conductivity, as a result there is reduced heat loss in supply of hot water.

LOW BACTERIA BUILD-UP

CPVC piping doesn't supports bacteria growth compared with traditional piping materials.

LOW THERMAL EXPANSION CO- EFFICIENT

Less expansion of pipe when hot water runs, therefore, less need for expansion loops or less "looping".

HISTORY OF PROVEN PERFORMANCE

40 years of proven performance.



