

PE 100 PIPE DIMENSION CONFORMING TO ISO 4427, DIN 8074 & PREN 12201. SPECIFICATIONS DESIGN STRESS = 8 MPA

Nominal Size mm	Mean Outside diameter		S 20 SDR 41 PN 4		S 12.5 SDR 26 PN 6.3		S 10 SDR 21 PN 8		S 8 SDR 17 PN 10		S 6.3 SDR 13.6 PN 12.5		S 5 SDR 11 PN 16		S 4 SDR 9 PN 20		S 3.2 SDR 7.4 PN 25		S 2.5 SDR 6 PN 32	
	Max	Min	WT mm	WT Kg/m	WT mm	WT Kg/m	WT mm	WT Kg/m	WT mm	WT Kg/m	WT mm	WT Kg/m	WT mm	WT Kg/m	WT mm	WT Kg/m	WT mm	WT Kg/m	WT mm	WT Kg/m
20	20.3	20.3																		
25	25	25.3																		
32	32	32.3																		
40	40	40.4																		
50	50	50.5			2.0	0.32	2.4	0.37	3.0	0.45	3.7	0.55	4.6	0.672	5.6	0.79	6.9	0.946	8.3	1.09
63	63	63.6			2.5	0.48	3.0	0.58	3.8	0.72	4.7	0.87	5.8	1.06	7.1	1.27	8.6	1.48	10.5	1.74
75	75	75.7			2.9	0.69	3.6	0.82	4.5	1.01	5.6	1.24	6.8	1.48	8.4	1.78	10.3	2.10	12.5	2.46
90	90	90.9			3.5	0.97	4.3	1.18	5.4	1.47	6.7	1.78	8.2	2.14	10.1	2.56	12.3	3.02	15.0	3.54
105	105	106.2			4.2	1.44	5.3	1.78	6.6	2.18	8.1	2.63	10.0	3.17	12.3	3.81	15.1	4.52	18.3	5.28
125	125	126.2			4.8	1.85	6.0	2.27	7.4	2.77	9.2	3.39	11.4	4.12	14.0	4.92	17.1	5.82	20.8	6.80
140	140	141.3			5.4	2.33	6.7	2.84	8.3	3.48	10.3	4.25	12.7	5.13	15.7	6.17	19.2	7.30	23.8	8.54
160	160	161.5			6.2	3.05	7.7	3.74	9.5	4.55	11.8	5.54	14.6	6.72	17.9	8.02	21.9	9.51	26.6	11.13
180	180	181.7			6.9	3.81	8.6	4.69	10.7	5.75	13.3	7.03	16.4	8.50	20.1	10.55	24.6	12.03	29.9	14.07
200	200	201.8			7.7	4.72	9.6	5.81	11.9	7.10	14.7	8.59	18.2	10.50	22.4	12.55	27.4	14.89	33.2	17.38
225	225	227.1			8.6	5.92	10.8	7.34	13.4	8.99	16.6	10.96	20.5	13.30	25.2	15.89	30.8	18.80	37.4	22.00
250	250	252.3			9.6	7.34	11.9	8.99	14.8	11.02	18.4	13.50	22.7	16.40	27.9	19.53	34.2	23.21	41.6	27.14
280	280	282.6			10.7	9.16	13.4	11.35	16.6	13.86	20.6	16.90	25.4	20.50	31.3	24.55	38.3	29.10	46.5	34.05
315	315	317.9			12.1	11.67	15.0	14.26	18.7	17.54	23.2	21.43	28.6	25.88	35.2	31.06	43.1	36.85		
355	355	358.2			13.6	14.92	16.9	18.11	21.1	22.23	26.1	27.16	32.2	32.83	39.7	39.44	48.5	46.71		
400	400	403.6			15.3	18.70	19.1	23.09	23.7	28.23	29.4	34.45	36.3	41.69	44.7	50.04				
450	450	454.1			17.2	23.64	21.5	29.19	26.7	35.76	33.1	43.68	40.9	52.80	50.3	62.7				
500	500	504.5			19.1	29.16	23.9	36.07	29.7	44.18	36.8	53.84	45.4	65.13						
560	560	565			23.7	36.55	26.7	45.08	32.2	55.34	41.2	67.55	50.8	81.80						
630	630	635.7			30.07	54.1	46.31	60.0	56.95	37.4	70.09	46.3	87.50	57.2	103.4					
710	710	716.4			38.4	72.2	59	83.9	72.6	42.1	89	52.2	109	64.5	131					
800	800	807.2			48.4	92.0	64.7	113	58.8	138										
900	900	908.1			61.3	116	84.4	142.9	116	174										
1000	1000	1009			75.9	144	176	207	144	207										
1200	1200	1211			294	459	168	57.2	207											



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# HDPE-100 PIPES

HIGH-DENSITY  
POLYETHYLENE  
PIPE SYSTEM

MEETING THE CHALLENGES OF THE  
21<sup>ST</sup> CENTURY

ABSOLUTELY COMPLETE SYSTEM

## HIGH DENSITY POLYETHYLENE PIPE SYSTEMS:

Piping made from polyethylene is a cost effective solution for a broad range of piping problems in construction, municipal, industrial, marine, landfill, ducting, sewerage system and agricultural applications. It has been tested and proven effective for above ground, surface, buried, floating, and subsurface marine applications. In fact, polyethylene pipe has a long and distinguished history of services to the water supplies, drainage systems, gas, oil, mining and other industries. It has the lowest repair frequency per mile of pipe material used. Polyethylene is strong, extremely tough and very durable. Whether you're looking for long service, trouble-free installation, flexibility, resistance to chemicals or a myriad of other features, High-density polyethylene pipe will meet all your requirements.

## HDPE PIPE AS A POTABLE WATER PIPE MATERIAL:

The general health of any municipality depends on the potable water piping systems it uses to provide an adequate supply of fresh water and to remove that water once we are finished with it. A water distribution system is the system of piping that carries water into and out of an inhabited building or series of buildings. To protect the public health, every inhabited building must provide a fresh and safe supply of potable water for drinking and an effective system of removing of solid waste and waste water. The greatest challenge facing municipalities today, is coming to grips with the fact that fresh water is a fixed resource and that wastewater is not. When confronted with deteriorating water and sewage systems that leak, are expensive to replace and susceptible to contamination. Water management experts are starting to recognize other possibilities of having a virtually leak-free piping system that will resist corrosion and ground movement as severe as earthquakes at a relatively low cost.

## FEATURES OF PAKARAB HDPE PIPE:

**Lightweight, Flexible and Fatigue Resistance:** Polyethylene pipe is produced in straight lengths or in coils. Made from materials about one-eighth the density of steel, it is lightweight and does not require the use of heavy lifting equipment for installation. It reduces the need for fittings, is excellent in shifting soils and performs well in earthquake- prone areas. These physical attributes also allow F-IDPE pipe to safely accept repetitive pressure surges that significantly exceed the static pressure rating of the pipe. HOPE resists the effects of freezing and allows bending without the need for an excessive number of fittings. Since HOPE is not a brittle material, it can be installed with bends over uneven terrain easily in continuous lengths, additional welds or couplings. HDPE pipes can be bent to radius 25 times of the nominal pipe diameter (12 inch HOPE pipe, for e.g, can be cold formed in the field to a 25 foot radius.) This eliminated many of the fittings otherwise required for directional changes in piping system.

**Excellent Flow Characteristics:** Because Polyethylene is smoother than steel, cast iron, ductile iron, or concrete, a smaller PE pipe can carry an equivalent volumetric flow rate at the same pressure. It has less drag and a lower tendency for turbulence at high flow. Its superior chemical resistance and non-stick surface, combine to almost eliminate scaling and pitting and preserve the excellent hydraulic characteristics throughout the pipe service life.

**Corrosion, Abrasion, and Chemical Resistant:** Polyethylene pipe's performance in mining, dredging and similar applications proves to outwear many costly piping materials when conveying a variety of abrasive slurries. HDPE has excellent resistance against corrosion and is virtually inert. It does not need expensive maintenance or extra protection. Outstanding resistance to both internal and external chemical attack has made the HDPE Pipe the material of choice for the transport of lower temperature fluids in adverse chemical environment. High Density Polyethylene is chemically inert to a wide range of industrial chemicals. In addition, Polyethylene is unaffected by bacteria, fungi and the most aggressive naturally occurring soils, It has good resistance to many organic substances, such as solvents and fuels.

**Ductility and Toughness:** Polyethylene pipe and fittings are inherently tough, resilient and resistant to damage caused by external loads, vibrations and from pressure surges as water hammer. Even in cold weather, Polyethylene pipes are tolerant to handling and bending.

## PAKARAB HDPE PIPE OFFERS A NUMBER OF TECHNO-COMMERCIAL ADVANTAGES OVER THE CONVENTIONAL SYSTEMS.

- Durable and light weight.
- Smooth external and internal finish — almost frictionless flow.
- Corrosion resistant — inert to most acids & alkalis.
- Comprehensive range.
- Joins easily & leak proof.
- Strong enough to last uneven static and dynamic loads.
- Flexibility ensures smooth installation and trouble free functioning.
- Longer lengths, which reduces the number of joints and the possibilities of human errors in the installation.
- Easy to transport.
- Flexibility.
- Cost-effective installation.
- Bacteria and chemical resistant.

## APPLICATIONS OF PAKARAB HDPE PIPES:

- Potable Water Supply.
- Cooling / Chilled Water Line.
- Suction and delivery from well.
- Irrigation Pipes.
- Chemical Effluent Disposals.
- Slurry Transportation.
- Sewage and Dam Line.

