



PE 100

In sizes DN20 – 1600mm

pressure pipes

Water and sewage

Long Durability | Environmental Aspects | High Quality

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Designed for main distribution pressure water lines, delivery of chemicals or pressure air, suction pipelines, in cooling systems, collectors for thermal pumps etc.

Manufactured in compliance with ČSN EN 12201-2



GENERALLY

These pipes are made from high-consistency materials PE 80 and PE 100. Dimensions and technical parameters comply with ČSN EN 12201-2. Used pipe colours for water distribution lines are black or black with blue stripes or blue. Used pipe colours for sewage systems are black with brown stripes. The pipes are delivered in lengths of 6 and 12 m or in coils with diameters up to 180 mm - wounded pipe lengths are up to 500 m according to the given pipe type.

USAGE

These piping systems can be used particularly for underground distribution networks. For aboveground applications it is necessary to use straight pipes that must be supported or anchored accordingly due to tendency to dilatation and reduced rigidity as compared with steel pipes. Pipes in coils are not used for aboveground installations. These piping systems are used particularly for drinking water distribution and furthermore, for food industry applications, distribution of sanitary and service water, pressure air and gases, chemicals, in irrigation systems and in pressure or vacuum sewerage systems. Under certain circumstances it is possible to use them also for delivery of powder materials provided that any electrostatic charges during delivery are excluded. Utilisation also in various irrigation systems, such as sprinklers, irrigators, suction lines of pumping systems, augers and thermal pump lines. For their characteristic high elasticity they can be used also in trenchless applications.

DURABILITY

Expected service life of PE pipes is approximately 50 year.

FIRE SAFETY CLASSIFICATION

Polyethylene can be classified as to inflammability in class C3 (i.e. as flammable).

THERMAL AND PRESSURE CHARACTERISTICS

The PE products are characterized by very good thermal and insulating characteristics. The pipes not exposed to mechanical stress are stable within the temperature range as from -50°C to +85°C. The PE products mechanically stressed should be preferably used only for temperatures up to +65°C. At temperature of +20°C it is possible to use line pressures ranging from 2,5 to 25 bar.

CHEMICAL AND PHYSICAL CHARACTERISTICS

Polyethylene is characterised by high chemical resistance and it is very stable to all non-oxidizing acids, caustics, salts and their solutions. However, it is not resistant to highly oxidizing chemical agents (such as nitric acid, halogens, fuming sulphuric acid etc.). Polyethylene provides nearly zero moisture capacity that is why it is possible to use it in environment with varying relative humidity without any changes in dimensions or mechanical properties. All the plastic pipes generally provide high resistance to abrasion and they are nonconductive.

PIPE CONNECTING

1. Mechanical couplers that can be made from plastics or metal. Their advantage consists in a chance to combine diverse materials and in case of oval pipes it is possible to adapt their shape. These joints in general provide even higher tensile strength than the pipe itself.

2. Butt welding, poly-fusion welding or by means of electric adaptors. While welding, it is necessary to observe all applicable rules. Materials PE 80 and PE 100 are weldable but it is not possible to weld polyethylene and polypropylene with each other, as well as PE 40 with PE 80, PE 100. In these cases mechanical joints are more practicable.

CERTIFICATION

The above-mentioned products are approved for utilisation in the Czech and Slovak Republic and in Poland.



Ø	PIPE HDPE PE - 100														Ø	
	PN 6 SDR 26			PN 10 SDR 17			PN 16 SDR 11			PN 20 SDR 9			PN 25 SDR 7,4			
	s	Weight	Packing	s	Weight	Packing	s	Weight	Packing	s	Weight	Packing	s	Weight		Packing
[mm]	[kg/m]	[m]	[mm]	[kg/m]	[m]	[mm]	[kg/m]	[m]	[mm]	[kg/m]	[m]	[mm]	[kg/m]	[m]	[mm]	
Colour - black, black with blue stripe or blue (water), black with brown stripe (sewer)																
20							2,0	0,12	200	2,3	0,13	200,00	3,0	0,16	200	20
25				1,8	0,14	6,12,100	2,3	0,17	6,12,100	3,0	0,21	6,12,100	3,5	0,24	6,12,100	25
32				2,0	0,19	6,12,100	3,0	0,28	6,12,100	3,6	0,33	6,12,100	4,4	0,39	6,12,100	32
40				2,4	0,29	6,12,100	3,7	0,43	6,12,100	4,5	0,51	6,12,100	5,5	0,60	6,12,100	40
50	2,0	0,31	6,12	3,0	0,45	6,12,100	4,6	0,67	6,12,100	5,6	0,79	6,12,100	6,9	0,94	6,12,100	50
63	2,5	0,49	6,12	3,8	0,72	6,12,100	5,8	1,05	6,12,100	7,1	1,26	6,12,100	8,6	1,46	6,12,100	63
75	2,9	0,67	6,12	4,5	1,02	6,12,100	6,8	1,47	6,12,100	8,4	1,77	6,12,100	10,3	2,11	6,12,100	75
90	3,5	0,97	6,12	5,4	1,46	6,12,100	8,2	2,13	6,12,100	10,1	2,56	6,12,100	12,3	3,02	6,12,100	90
110	4,2	1,43	6,12	6,6	2,17	6,12,100	10,0	3,16	6,12,100	12,3	3,80	6,12,100	15,1	4,52	6,12,100	110
125	4,8	1,84	6,12	7,4	2,77	6,12,100	11,4	4,10	6,12,100	14,0	4,90	6,12,100	17,1	5,82	6,12,100	125
140	5,4	2,33	6,12	8,3	3,48	6,12	12,7	5,11	6,12,100	15,7	6,16	6,12,100	19,2	7,31	6,12,100	140
160	6,2	3,05	6,12	9,5	4,54	6,12	14,6	6,71	6,12,100	17,9	8,02	6,12,100	21,9	9,51	6,12,100	160
180	6,9	3,80	6,12	10,7	5,74	6,12	16,4	8,48	6,12,100	20,1	10,10	6,12,100	24,6	11,90	6,12,100	180
200	7,7	4,71	6,12	11,9	7,09	6,12	18,2	10,46	6,12	22,4	12,40	6,12	27,4	14,80	6,12	200
225	8,6	5,92	6,12	13,4	8,99	6,12	20,5	13,24	6,12	25,2	15,80	6,12	30,8	18,60	6,12	225
250	9,6	7,33	6,12	14,8	11,00	6,12	22,7	16,28	6,12	27,9	19,40	6,12	34,2	23,00	6,12	250
280	10,7	9,15	6,12	16,6	13,70	6,12	25,4	20,41	6,12	31,3	24,30	6,12	38,3	28,90	6,12	280
315	12,1	11,60	6,12	18,7	17,40	6,12	28,6	25,84	6,12	35,2	30,80	6,12	43,1	36,50	6,12	315
355	13,6	14,60	6,12	21,1	22,10	6,12	32,2	32,80	6,12	39,7	39,10	6,12	48,5	46,30	6,12	355
400	15,3	18,60	6,12	23,7	28,00	6,12	36,3	41,64	6,12	44,7	49,60	6,12	54,7	58,80	6,12	400
450	17,2	23,50	6,12	26,7	35,40	6,12	40,9	52,73	6,12	50,3	62,70	6,12	61,5	74,40	6,12	450
500	19,1	28,90	6,12	29,7	43,80	6,12	45,4	65,06	6,12	55,8	77,30	6,12	68,3	91,80	6,12	500
560	21,4	36,20	6,12	33,2	54,80	6,12	50,8	81,50	6,12	62,5	97,00	6,12			6,12	560
630	24,1	45,90	6,12	37,4	69,40	6,12	57,2	103,27	6,12			6,12			6,12	630
710	27,2	58,40	6,12	42,1	88,10	6,12	64,5	131,18	6,12			6,12			6,12	710
800	30,6	73,90	6,12	47,4	112,00	6,12	72,9	174,10	6,12			6,12			6,12	800
900	34,4	93,40	6,12	53,3	141,00	6,12			6,12			6,12			6,12	900
1000	38,2	115,00	6,12	59,3	175,00	6,12			6,12			6,12			6,12	1000
1200	45,9	166,00	6,12			6,12			6,12			6,12			6,12	1200
*1400	53,5	226,00	6,12			6,12			6,12			6,12			6,12	*1400
*1600	61,2	295,00	6,12			6,12			6,12			6,12			6,12	*1600

Other SRD classes on request

Pipe dimensions according to the standard ČSN EN12201-2
* on request

