



## BluEnergy™ Piping Specification

HDPE PE 100 Pipe can be deployed for running water, gas, firefighting, deep water -intake infrastructure and marine structure which is for marine landing stage and facilities and Energy Jacket Pipe for district heating piping system



### Property of PE100 Material

Property	Unit	Typical Value	Test Method
Melt Index	g/10min	0.21	ASTM D1238
Density	g/cm <sup>3</sup>	0.95	ASTM D1505
Water Absorption	%	<0.01	ASTM D570
Tensile Strength at Yield	kgf/cm <sup>2</sup>	240	ASTM D638
Elongation at Break	%	>600	ASTM D638
Flexure Modulus	kgf/cm <sup>2</sup>	9,000	ASTM D790
Rockwell Hardness	R Scale	40	ASTM D785
Impact Strength	kgf cm/cm	>50	ASTM D256
Environment Stress Cracking Resistance	hr.Cond.B.10%	>5000	ASTM D1693
Melting Point	°C	133	ASTM D3418
Vicat Softening Point	°C	124	ASTM D1525
Oxidation Induction Time at 200°C	min	>60	ASTM D3895
Heat Deflection Temperature	°C	65	ASTM D648
Brittleness Temperature	°C	<-70	ASTM D746

\* The above value is representative value

## HDPE Piping Size Dimension

SIZE	Outside Dia. (mm)		Material		SDR11	SDR13.6	SDR17	SDR21	SDR26					
					PN(Nominal Pressure, bar)									
			PE100		PN16	PN12.5	PN10	PN8	PN6					
	PE80		PN12.5	PN10	PN8	PN6	PN5							
	Length(m)		Pipe Wall Thickness(mm)											
Min.	Max.	Straight t	Roll	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	
20	20	20.3	6	120	2.0	2.3	-	-	-	-	-	-	-	-
25	25	25.3	6	120	2.3	2.7	-	-	-	-	-	-	-	-
32	32	32.3	6	90	3.0	3.4	-	-	-	-	-	-	-	-
40	40	40.4	6	90	3.7	4.2	-	-	-	-	-	-	-	-
50	50	50.4	6	60	4.6	5.2	-	-	-	-	-	-	-	-
63	63	63.4	6	40	5.8	6.5	-	-	-	-	-	-	-	-
90	90	90.6	6	40	8.2	9.2	-	-	-	-	-	-	-	-
110	110	110.7	6	-	10.0	11.1	8.1	9.1	6.6	7.4	5.3	6.0	4.2	4.8
160	160	161.0	6	-	14.6	16.2	11.8	13.1	9.5	10.6	7.7	8.6	6.2	7.0
225	225	226.4	6	-	20.5	22.7	16.6	18.4	13.4	14.9	10.8	12.0	8.6	9.6
250	250	251.5	6	-	22.7	25.1	18.4	20.4	14.8	16.4	11.9	13.2	9.6	10.7
280	280	281.7	6	-	25.4	28.1	20.6	22.8	16.6	18.4	13.4	14.9	10.7	11.9
315	315	316.9	6	-	28.6	31.6	23.2	25.7	18.7	20.7	15.0	16.6	12.1	13.5
355	355	357.2	6	-	32.2	35.6	26.1	28.9	21.1	23.4	16.9	18.7	13.6	15.1
400	400	402.4	6	-	36.3	40.1	29.4	32.5	23.7	26.2	19.1	21.2	15.3	17.0
450	450	452.7	6	-	40.9	45.1	33.1	36.6	26.7	29.5	21.5	23.8	17.2	19.1
500	500	503.0	6	-	45.4	50.1	36.8	40.6	29.7	32.8	23.9	26.4	19.1	21.2
560	560	563.4	6	-	50.8	56.0	41.2	45.5	33.2	36.7	26.7	29.5	21.4	23.7
630	630	633.8	6	-	57.2	63.1	46.3	51.1	37.4	41.3	30.0	33.1	24.1	26.7
710	710	716.4	6	-	-	-	52.2	57.6	42.1	46.5	33.9	37.4	27.2	30.1
800	800	807.2	6	-	-	-	58.8	64.8	47.4	52.3	38.1	42.1	30.6	33.8
1000	1000	1009.0	6	-	-	-	-	-	53.3	58.8	47.7	52.6	38.2	42.2
1200	1200	1210.8	6	-	-	-	-	-	59.3	65.4	57.2	63.1	45.9	50.6

## Internationally Certified

KNET has met and maintains the rigorous standards required to become a Certified ISO 9001, ISO 14001 and TL9000 manufacturer.

