

Working for a Better Tomorrow

# BBJ Polyethylene Water Pipes

a sign of quality

BBJ GROUP

ISO 4427, DIN 8074/8075



BBJ Polyethylene Pipe is fast replacing conventional piping system for house/service connections, water supply and distribution. BBJ Polyethylene Pipe is manufactured from high quality Polyethylene (PE) compound imported from internationally reputed organizations.

## Product Range

- Diameter range: 16 mm to 500 mm
- Coil of 50 & 100 meter length upto 90 mm diameter.
- Straight length of 6 & 12 meter up to 500 mm diameter.

## Raw Material Specifications

- High density polyethylene PE-100. is highly resistant to environmental stress cracking and meets the ISO classification for PE 100 pipe materials.
- Mill test certificates issued upon request.

## Physical Properties of Raw Material

(HDPE 100 tests are performed by raw material manufacturer)

Property	Typical Value	Units	Test Method
Melt Flow Rate (190°C, 5Kg)	0.25	g/10min	ISO 1133-1
Density of Compound	≥930	Kg/m <sup>3</sup>	ISO 1183-1
Elongation at Break	>350	%	ISO 6259-1,-3
Carbon Black Content	2.0 - 2.5	%	ISO 6964
Carbon Black Dispersion	≤3	-	ISO 18553
Oxidation Induction Time (210°C)	≥20	min	ISO 11357-6
Resistance to rapid crack propagation (S4 test, 0°C, test pipe 250mm, SDR 11)	10	bar	ISO 13477
Minimum Required Strength (MRS)	10.0	Mpa	ISO/TR 9080

## Features of BBJ Pipe-PE Piping System

- Flexible and light weight pipe.
- Resistant to UV, biological attack, corrosion, abrasion, chemicals and weatherability
- Have various jointing techniques
- Have low coefficient of friction i.e excellent flow properties
- Light weight & low installation cost
- Low maintenance and operational cost
- Durable & impact resistant
- Non biodegradable
- Long life (More than 50 years) & suitable for narrow trenching
- Can withstand substantial deflection during installation
- Impervious to contaminated sub-soils
- Resistant to saline water (To transport salty/sea/saline water)
- Material classification is simple to understand for fusion/welding compatibility.
- Ductile & tough
- Comparatively high coefficient of linear heat expansion (thermal expansion)

## Technical Advantages

### Easy jointing

- Butt fusion
- Socket fusion
- Electro fusion
- Mechanical joints methods

## Applications

- Water supply & distribution networks
- Water treatment & desalination plants
- Waste water & pressure sewerage disposable
- Irrigation system
- Industrial purposes & many more
- Potable water piping network system
- Cooling water piping
- Sea water effluents
- Storage tank piping, water intakes and water outfalls
- Fire hydrant lines
- House and service connection
- Sludge piping, fly ash disposal, dredging and hazardous waste

## Industrial Usage

- Agriculture and irrigation
- Breweries and food processing
- Oil, gas & chemicals
- Marine and mining
- Power generation
- Textile (dying/bleaching/effluents)
- Tanneries and mineral processing
- Fire extinguisher water line
- Telecommunication and many more

## Product Specification (ISO4427 & DIN8074/75)

Grade PE-100	Wall Thicknesses (mm)											
	SDR 26		SDR 21		SDR 17		SDR 13.6		SDR 11		SDR 9	
Dimension Ratio	PN-6		PN-8		PN-10		PN-12.5		PN-16		PN-20	
Nominal Pressure	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max
16	---	---	---	---	---	---	---	---	---	---	2.0	2.3
20	---	---	---	---	---	---	---	---	2.0	2.3	2.3	2.7
25	---	---	---	---	---	---	2.0	2.3	2.3	2.7	3.0	3.4
32	---	---	---	---	2.0	2.3	2.4	2.8	3.0	3.4	3.6	4.1
40	---	---	2.0	2.3	2.4	2.8	3.0	3.5	3.7	4.2	4.5	5.1
50	2.0	2.3	2.4	2.8	3.0	3.4	3.7	4.2	4.6	5.2	5.6	6.3
63	2.5	2.9	3.0	3.4	3.8	4.3	4.7	5.3	5.8	6.5	7.1	8.0
75	2.9	3.3	3.6	4.1	4.5	5.1	5.6	6.3	6.8	7.6	8.4	9.4
90	3.5	4.0	4.3	4.9	5.4	6.1	6.7	7.5	8.2	9.2	10.1	11.3
110	4.2	4.8	5.3	6.0	6.6	7.4	8.1	9.1	10.0	11.1	12.3	13.7
125	4.8	5.4	6.0	6.7	7.4	8.3	9.2	10.3	11.4	12.7	14.0	15.6
140	5.4	6.1	6.7	7.5	8.3	9.3	10.3	11.5	12.7	14.1	15.7	17.4
160	6.2	7.0	7.7	8.6	9.5	10.6	11.8	13.1	14.6	16.2	17.9	19.8
180	6.9	7.7	8.6	9.6	10.7	11.9	13.3	14.8	16.4	18.2	20.1	22.3
200	7.7	8.6	9.6	10.7	11.9	13.2	14.7	16.3	18.2	20.2	22.4	24.8
225	8.6	9.6	10.8	12.0	13.4	14.9	16.6	18.4	20.5	22.7	25.2	27.9
250	9.6	10.7	11.9	13.2	14.8	16.4	18.4	20.4	22.7	25.1	27.9	30.8
280	10.7	11.9	13.4	14.9	16.6	18.4	20.6	22.8	25.4	28.1	31.3	34.6
315	12.1	13.5	15.0	16.6	18.7	20.7	23.2	25.7	28.6	31.6	35.2	38.9
355	13.6	15.1	16.9	18.7	21.1	23.4	26.1	28.9	32.2	35.6	39.7	43.8
400	15.3	17.0	19.1	21.2	23.7	26.2	29.4	32.5	36.3	40.1	44.7	49.3
450	17.2	19.1	21.5	23.8	26.7	29.5	33.1	36.6	40.9	45.1	50.3	55.5
500	19.1	21.2	23.9	26.4	29.7	32.8	36.8	40.6	45.4	50.1	55.8	61.5



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