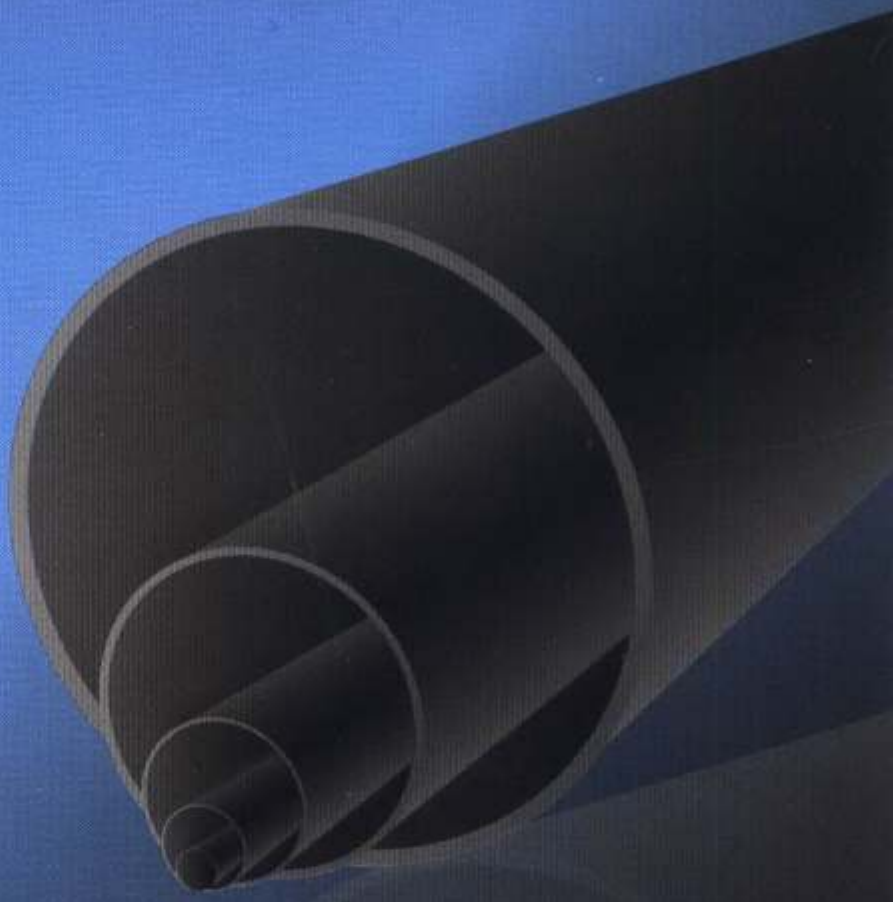
Working for a better tomorrow



BBJ Polyethylene Pipes

Flexible Pipe System for Water & Industrial Applications

ISO 4427 DIN 8074/8075

a sign of quality

BBJ PIPE INDUSTRIES (PVT) LTD

BBJ PIPE - HDPE / MDPE

Water is for too precious to waste, so it is esential to have distribution system that ensure minimum losses in transit throughout the lifecycle while serving the diversified users in household (House/Service Connections), industries, agriculture and other sectors that are integral part of society. It is widely recognized that Polyethylene (PE) Pipes have valuable role to play in meeting this objective (water management), both for new systems in developing countries and for renovation of existing systems in the developed world, many of which are old and leaking water at an unsustainably high rate. An ideal piping system should not just transport water but it should also protect water from variables that threaten to contaminate it, such as bacteria, corrosion and abrasion.

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

BBJ Polyethylene Pipe is safe to use because it does not allow algae growth, rot or rust over time. BBJ Pipe system is extremely resistant to scale build up, which can lead to decreased flow rates and decontaminated water. BBJ Polyethylene pipes are impervious to most aggressive chemicals and corrosive elements.

BBJ Pipe system delivers significant value to industrial users as well. BBJ Pipe system is perfect solution for industrial applications that feature high flow rates and extremely harsh conditions. BBJ Polyethylene Pipe is ideal for transportation of aggressive fluids and chemicals as well as potable water from one point to another without the need of regular maintenance or replacement. It is specifically designed for processes where corrosion resistance, abrasion resistance and operating pressure are major factors. In addition, polyethylene fittings are more chemically resistant than steel.

PRODUCT RANGE

BBJ Pipe offers high and medium density Polyethylene (PE) pipe for water and industrial applications. BBJ Polyethylene Pipe is produced from selecting international reputed supplier high quality resin, extruded with precision and strict quality control measures taken to ensure high quality of the product in compliance to international standards.

BBJ PIPE SIZES

Diamter Range:	20 mm to 450 mm
Coils:	50 m and 100 m standards length upto 90 mm
Length:	6 m and 12 m upto 450 mm

ipe PE 100 SDR 11 RN 16

BBJ Pipe PE 100 SDR 11 RN 16

APPLICATION

- Water supply & distribution networks
- Water treatment & desalination plants
- Waste water & pressure sewerage disposable
- Irrigation System
- Industrial purposes & many more
- Potable water piping network system
- Chilled water piping
- Cooling water
- 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

FABRICATED FITTINGS

BBJ Polyethylene fabricated fittings are manufactured from pipes in a wide variety of sizes and pressure classes. The standard range of polyethylene fabricated fittings are manufactured within our manufacturing facility where our experts ensure a quality product is being manufactured, fittings ranging in size from 20–450 mm.

INDUSTRIAL USE:

BBJ Polyethylene Pipe caters to a variety of industries for different use. Some of them include:

- Agriculture and Irrigation
- Breweries and food processing
- Oil, Gas & Chemicals
- Marine and mining
- Power Generation
- Textile (Dying/Bleaching/Effluents)
- Tanneries and mineral processing
- Fire Main Line
- Telecommunication and many more
- Sugar

RAW MATERIAL

The Polyethylene compound used for production process is in the form of small uniform sized granules. It is imported by BBJ Pipe from reputed international suppliers. Pipes are manufactured from Polyethylene (PE) compound, which is a synthetic compound normally produced from the distillation and cracking of crude oil. Polyethylene (PE 80 & PE 100) is highly resistant to environmental stress cracking and meets the ISO classification for (PE 80 & PE 100) pipe materials.

PHYSICAL PROPERTIES (Raw Material)

(Tests are performed by raw material manufacturer. Copy of test certificate is provided upon request)

PROPERTY		TYPICAL VALUE	UNITS	TEST METHOD
Melt Flow Rate	190oC/5kg	0.26	g/10 min.	ISO 1133
Density of Compound	Compound	950-960	Kg/m3	ISO 1183
Tensile Stress at Yield	50 mm/min	>21	MPa	ISO 1133
Elongation at Yield		9	%	ISO 527-2
Elongation at Break		>350	%	ISO 527-2
Charpy Impact Strength, notched	0 °C	14	Kg/m	ISO 197/leA
Thermal Stability	210 °C	>20	Min.	EN 728
Carbon Black Content		>2	%	ASTM D 1603
Environmental Stress Crack Resistance	10% Igepal,F60	>10000	Hrs.	ASTM D 1693 A
Brittleness Temperature		<-70	°C	ASTM D 746

FEATURES OF BBJ PIPE PIPING SYSTEM

- Flexible pipe so coiling is easy
- 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 like PE 80 and PE 100
- Ductile & toughness
- Comparatively high coefficient of linear heat expansion (thermal expansion)

BBJ PIPE - PE STANDARD SPECIFICATIONS

BBJ PIPE - HDPE
ISO 4427-2007
PE 100 Material

DN	SDR 11 (PN 16)	SDR 13.6 (PN 12.5)	SDR 17 (PN 10)	SDR 21 (PN 8)
O.D (mm)	e (mm)	e (mm)	e (mm)	e (mm)
20	2.0	-	-	-
25	2.3	2.0	-	-
32	3.0	2.4	2.0	-
40	3.7	3.0	2.4	2.0
50	4.6	3.7	3.0	2.4
63	5.8	4.7	3.8	3.0
75	6.8	5.6	4.5	3.6
90	8.2	6.7	5.4	4.3
110	10.0	8.1	6.6	5.3
125	11.4	9.2	7.4	6.0
140	12.7	10.3	8.3	6.7
160	14.6	11.8	9.5	7.7
180	16.4	13.3	10.7	8.6
200	18.3	14.7	11.9	9.6
225	30.5	16.6	13.4	10.8
250	22.7	18.4	14.8	11.9
280	25.4	20.6	16.6	13.4
315	28.6	23.2	18.7	15.0
355	32.2	29.4	21.1	16.9
400	36.3	32.2	23.7	19.1
450	40.9	33.1	26.7	21.5

PRESSURE RATING

Operating pressure of BBJ Polyethylene Pipes range between 6, 8, 10, 12.5, 16 and 20 bar. The nominal Pressure (PN) correspond to the maximum allowable working pressure in bar for pipe at 20°C.

Operating Pressure of BBJ Pipe Fittings:

10	bar	(Compression type)
8-16	bar	(Butt fusion type)

COLD BENDING RADII (CBR):

C8R in meters at 20 C° = 2x Outside Diameter of pipe

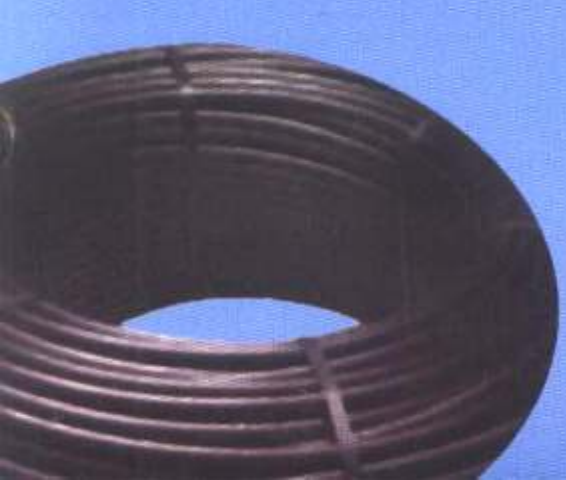
QUALITY ASSURANCE

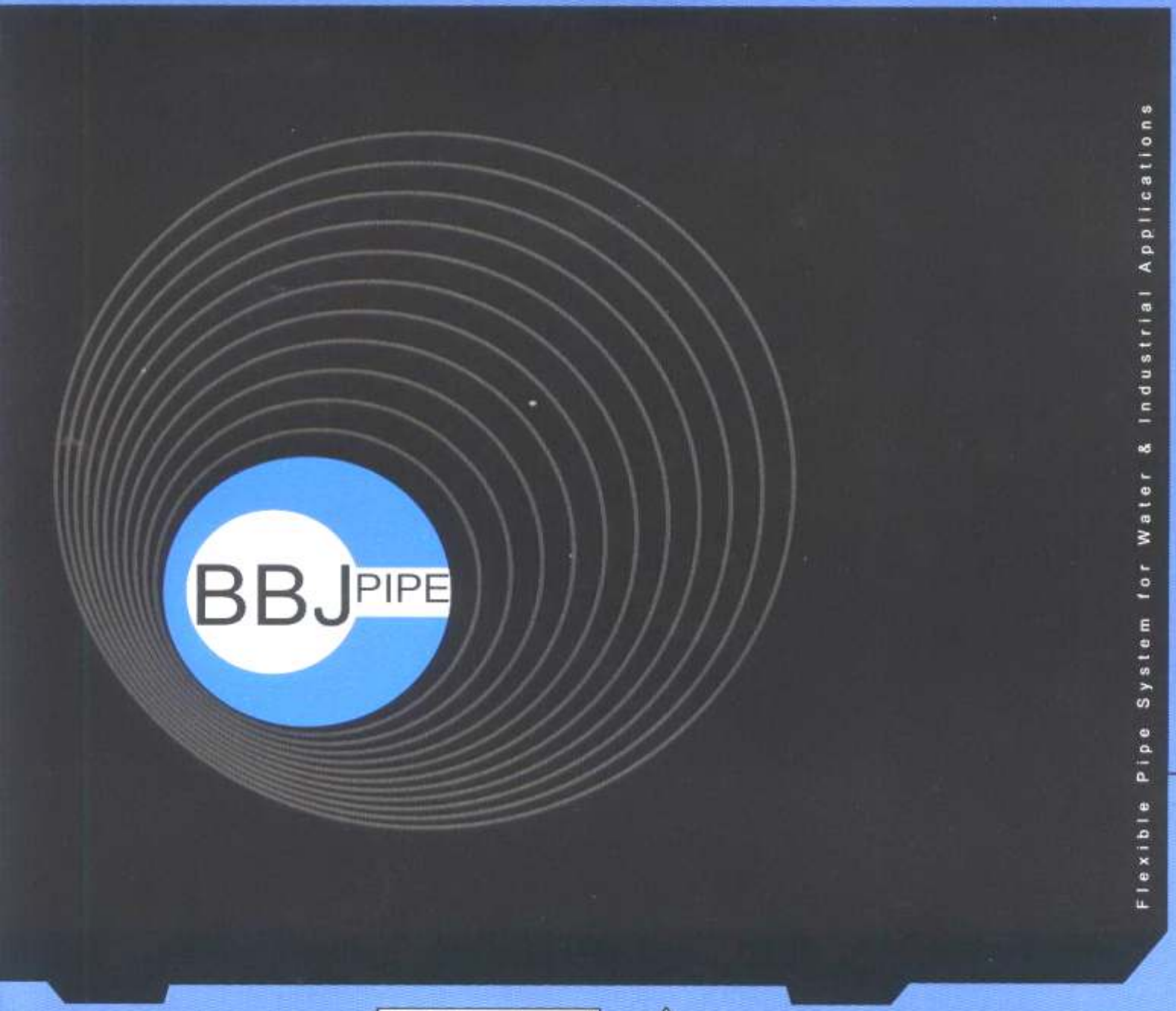
BBJ Pipe philosophy is customer focused and believes in customer delightness. All products are supplied to the customers after adhering stringent quality measures. In order to supply best quality products to the client, a separate quality control department has been established to ensure implementation of client specifications and compliance to applicable international standards from raw material to delivery of the products. Quality control staff consists of energetic and self motivated professional engineers. BBJ Pipe has in house laboratory facility, fully equipped with latest and state of the art testing equipments capable to test PE products & PE materials in accordance with all applicable International Standards.

CHEMICAL RESISTANCE CHART

Common chemicals resisted by polyethylene pipes are listed below where

S. #	Chemicals	PE	S. #	Chemicals	PE
1	Acetaldehyde	C	33	Chloroform	C
2	Acetamide	A	34	Chromic Acid 50%	A
3	Acetic Acid 80%	D	35	Citric Acid	A
4	Acetone	B	36	Copper Sulphate	B
5	Acetylene	A	37	Diesel Fuel	C
6	Alcohols: Amyl	B	38	Ethylene Glycol	B
7	Benzyl	D	39	Fatty Acids	A
8	Butyl	A	40	Ferric Chloride	A
9	Ethyl	B	41	Ferric Sulphate	A
10	Isopropyl	A	42	Fluorine	C
11	Methyl	A	43	Formaldehyde 10%	B
12	Aluminum Sulphate	A	44	Formic Acid	B
13	Ammonia	C	45	Gasoline	C
14	Aniline	B	46	Heptane	B
15	Aromatic Hydrocarbons	C	47	Hydrochloric Acid 20%	A
16	Arsenic Acid	B	48	Hydrogen Peroxide	C
17	Barium Carbonate	B	49	Iodine	A
18	Barium Sulphate	B	50	magnesium Hydroxide	A
19	Benzaldehyde	A	51	Mercury	A
20	Benzene	C	52	Oleum 100%	D
21	Benzoic Acid	B	53	Petrolatum	B
22	Benzol	C	54	Phenol	B
23	Borax	A	55	Phosphoric Acid	B
24	Boric Acid	A	56	Potassium Carbonate	A
25	Butadiene	D	57	Silver Nitrate	B
26	Butane	C	58	Sodium Bicarbonate	A
27	Butylenes	B	59	Stearic Acid	B
28	Calcium Sulphate	B	60	Sulphuric Acid	B
29	Carbon Dioxide	B	61	Tannic Acid	B
30	Carbon Disulfide	C	62	Toluene	C
31	Carbonic Acid	C	63	Zinc Sulphate	A
32	Chlorine, anhydrous	B			





ISO 9001-2008 Certified

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