

Working for a better tomorrow



BBJ PIPE - PPR-C

THE RELIABLE HOT AND COLD WATER PIPING SYSTEM

DIN 8077-8078



BBJ PIPE INDUSTRIES (PVT) LTD

BBJ PPR-C PIPE

BBJ PPR-C piping system can be used for distribution system in housing, administration and community buildings as well as for industrial installations. BBJ PPR-C pipe is designed to transport cold and hot water. It is also used for the distribution of compressed air.

In order to take advantage of its chemical resistance, other system properties and use of system for transport of other liquids, gaseous or solid media-an individual assessment of any such case would be needed.

MATERIAL SPECIFICATION

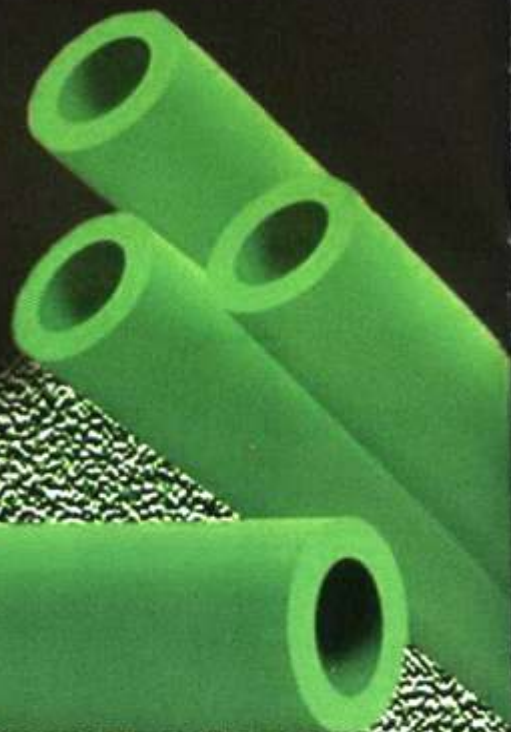
MATERIAL

BBJ PPR-C pipe is manufactured from Polypropylene Random Copolymer (PPR-C). PPR-C is a 100% food-grade material. Its resistance to high temperatures has made PPR-C a popular piping system recommended for domestic and industrial usage. The physical and chemical properties of PPR-C makes it a superior and safe piping system for the supply of potable water and other fluids.

STANDARD SPECIFICATIONS

BBJ PPR-C pipe conforms to the following international standards.

Pipe:	DIN 8077 - 8078	PN 20 & PN 10
Fittings:	DIN 16962	PN 25



QUALITY CONTROL

To produce quality pipes of all types is our primary objective and customer's satisfaction is given priority. Our products undergo rigorous quality checks at each stage of manufacturing from raw material to finish pipe in accordance with prescribed standards & specifications.

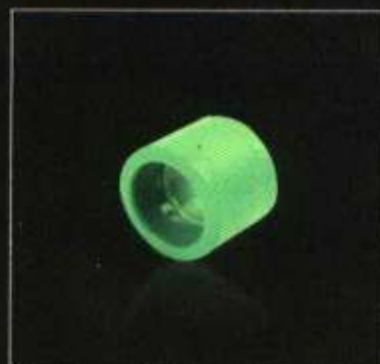
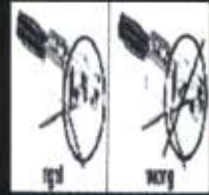
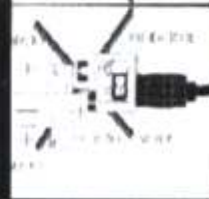
JOINTING TECHNIQUE

Heat Fusion

Jointing of BBJ PPR-C pipe is carried out by Heat Fusion. This is done through welding machine. The male and female parts of pipe and fittings are joined together to form a joint. The ends of the two parts are heated simultaneously. Once the welding temperature is reached, the two end parts (which are in molten form) are pressed together. They are held together till the recommended cooling time (see table #1), when fully cooled, a permanent leak free joint is formed. Heat fusion is an irreversible process, hence care should be taken in jointing in order to avoid loss of fittings.

Welding - Getting Started:

1.	Cut the pipe at right angle with a cutter.
2.	Mark off the welding depth at the pipe end.
3.	Simultaneously heat the ends of both pipe and fittings as per recommended heating time. (see table 1)
4.	Push the pipe end into the fitting and ensure its alignment of assembly within the specified time period.



RANGE

BBJ PPR-C pipes and fittings are available in the following diameter:
(wall thickness and internal diameter pertains to pipes only)

Outer Diameter Wall Thickness Internal Diameter

d mm	s mm	di mm
20	3.4	13.2
25	4.2	16.6
32	5.4	21.2
40	6.7	26.6
50	8.4	33.2
63	10.5	42.0
75	12.5	50.0
90	15.0	60.0
110	18.4	73.2

Complete range of fittings is available.

FIELDS OF APPLICATION

Hot and cold water installations in:

- Residences and Apartments
- Hospitals
- Hotels and Offices
- School Buildings
- Commercial Buildings and Plazas
- Swimming Pools

Pipe System Network:

- Various industries (for transportation of aggressive fluids)
- Chilled water for central air conditioning
- Compressed Air



SALIENT FEATURES

- ◆ BBJ PPR-C pipe conforms to international standards that approve its use for distribution of drinking water and other liquids.
- ◆ BBJ PPR-C pipe is light, thus it is easy to handle and transport.
- ◆ BBJ PPR-C pipe has a smooth internal surface, hence there is no chance of encrustation. This leads to reduced head loss and smooth flow.
- ◆ BBJ PPR-C pipe can sustain sub zero temperatures. Elasticity of the material allows the pipes to expand if the liquid being conveyed freezes due to low temperature. BBJ PPR-C pipe does not crack or break due to frosting.
- ◆ BBJ PPR-C pipe resists corrosion and abrasion even in presence of acidic and alkaline substances having pH values ranging between 1 to 14.
- ◆ BBJ PPR-C pipe is manufactured from a flexible material and can therefore be used in seismic areas.
- ◆ BBJ PPR-C pipe has high insulation capacity which reduces noise tremendously, even in case of water hammering.
- ◆ All elements of BBJ PPR-C piping system can be joined by heat fusion easily.
- ◆ All threaded inserts in the fitting are made of nickel plated brass and machined from solid bars. BBJ PPR-C pipes and fittings can easily be fixed with metal fittings such as taps, bib cocks and stop cocks which enhance its utility for a wide spectrum of applications.
- ◆ BBJ PPR-C piping system is environment friendly and can be recycled.
- ◆ BBJ PPR-C pipe is a poor conductor of electricity and is safe against stray currents.
- ◆ The material used for BBJ PPR-C pipe is poor conductor of heat. As a result, condensation and heat dispersion of the transported fluid are reduced. Due to this, it instantly allows hot or cold water to flow through pipes even if the piping system has not reached average working room temperature.



INSTALLATION GUIDELINES

- **Concealed Installations**

BBJ PPR-C does not cause any problem when embedded in the wall or floor, because naturally occurring frictional forces prevent the thermal expansion and contractions. Also the characteristics of deformability of the system can absorb expansions in walled installations.

- **Fastening technique for open installation**

Suspended pipelines require compensation for thermal changes and this can be achieved by proper placement of fixed and sliding clamps in the installation network.

- a) **Fixed Point**

Fixed clamps help limit the uncontrollable movements of the pipeline and divide them into sections. Fixed point spacing must be performed on the basis of pipe diameter. The material used to perform this operation must possess certain characteristics so that it does not damage the external surface of the pipe.

- b) **Sliding Point**

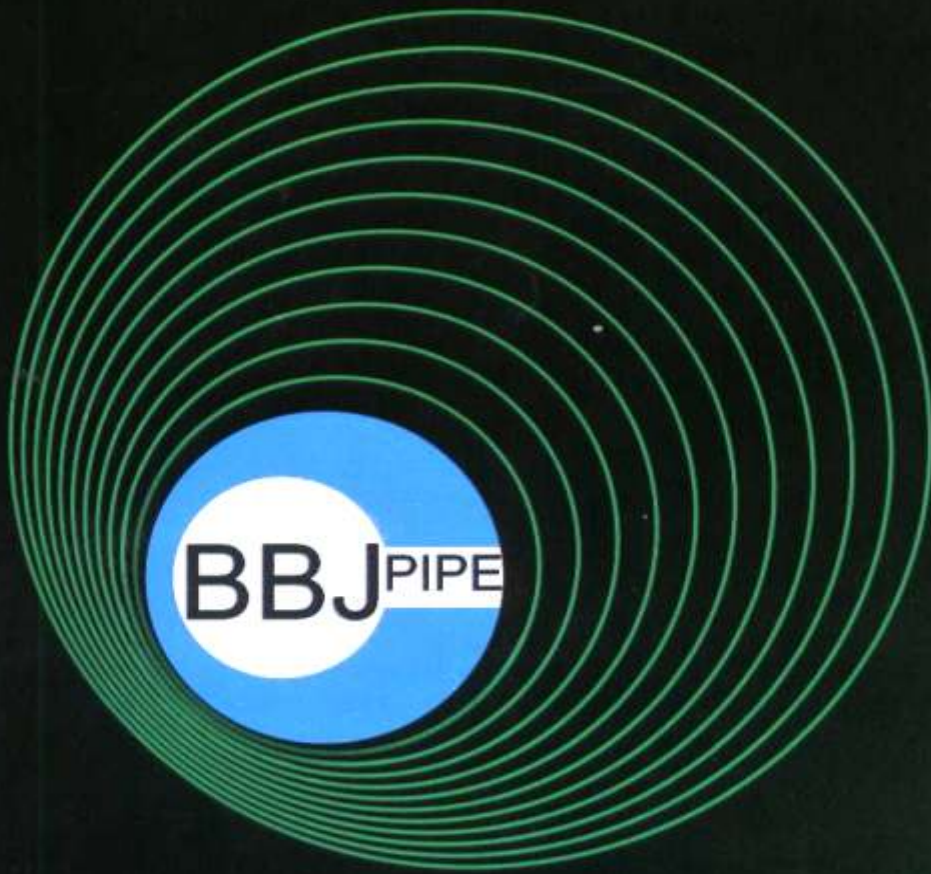
Sliding clamps allow the axial movement of the pipe without damaging it. On locating a sliding clamp it has to be ensured that movements of the pipeline are not hindered by fitting or armatures installed next to them.

BBJ PIPE CLAMP SPACES PN 20

Diameter Clamp spacing distances according to temperature, in centimeter

mm	20°C	30°C	40°C	50°C	60°C	70°C	80°C
20	120	115	109	105	104	100	95
25	140	130	125	121	118	112	108
32	160	158	154	150	145	140	135
40	185	175	168	164	160	155	150
50	200	178	185	175	170	165	155
63	210	205	195	187	180	175	165
75	230	225	215	195	182	180	170

T H E R E L I A B L E H O T A N D C O L D W A T E R P I P E S Y S T E M



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