

# POLYTECH™ PPR PIPES



*Polytech* PPR pipes are produced in accordance to the German standards *DIN 8077/8078* and *ISO 9001:2015* using skilled workforce with premium quality machinery and material. *Polytech* manufactures PPR pipes of all sizes ranging from 20mm to 90mm with different specifications (PN 16, PN 20 & PN 25).



<b>POLYTECH™ PPR Pipes Thickness in Accordance to DIN 8077/8078</b>				
Outside Diameter (mm)	Tolerance (mm)	PN 16 SDR 7.4 Series 5	PN 20 SDR 6 Series 6	PN25 SDR 5 Series 2
20	± 0.1	2.8	3.4	4.1
25	± 0.1	3.5	4.2	5.1
32	± 0.1	4.4	5.4	6.5
40	± 0.1	5.5	6.7	8.1
50	± 0.1	6.9	8.3	10.1
63	± 0.1	8.6	10.5	12.7
75	± 0.1	10.3	12.5	15.1
90	± 0.1	12.3	15.0	18.1

## Features & Advantages of PPR Pipes

- i. Healthy and bacteriologically neutral, meeting the drinking water standards.
- ii. High impact strength and resistant to high temperatures (maximum sustained working temperature is up to 70°C, maximum transient temperature is up to 95°C).
- iii. Convenient and reliable installation, low construction cost.
- iv. Excellent heat-insulation property due to low thermal conductivity.
- v. Lightweight, convenient for transportation & handling.
- vi. Smooth inner walls ensuring consistent pressure and increased flow speed.
- vii. Recyclable, environment-friendly, in accordance to GBM standards.



## POLYTECH™ Fiber Reinforced PPR Pipes

*Polytech* fiberglass reinforced PPR pipes are also manufactured in accordance to the *DIN 8077/8078* and *ISO 21003 standards*. Our multilayer pipes consist of three layers. External and internal layers are of conventional PPR and between them is a layer combined of polypropylene and fiberglass. The Glass Fiber Reinforced (GFR) within the two layers of PPR produces a FASER pipe with high bending stiffness, low thermal dilatation, and acts as an agent to reduce extension capability of the pipes nearly to the level of metal pipes.

## Quality Assurance

Our objective at *Polytech* is to maintain the uppermost levels of quality through transparent operating procedures, work ethics, forms and records throughout the company. Regular quality control tests are carried out and analyzed ensuring that the quality is never compromised. Our products are approved by **ISO 9001:2015** and **WRAS** certifying that *Polytech Plastic Industries LLC* complies with the high standards set out by water regulations.





## POLYTECH™ Mechanical & Thermal Properties

In accordance with its areas of application, *Polytech* piping system is designed for unremitting temperatures of 0°C to 90°C, and short-term uttermost temperatures of up to 100° C with a service life of at least 50 years. Therefore, *Polytech* piping system is ideal for all types of heated and cooled water networks.

Further particulars are summarized in the table below.

Lifetime of POLYTECH™ PPR Pipes				
Temperature (°C)	Service Life (Years)	PN 16	PN 20	PN 25
		Max Working Pressure		
20	1	28.6	36.0	45.3
	10	26.1	32.8	41.3
	50	24.5	30.9	38.9
	100	23.8	29.3	37.7
30	1	24.3	30.6	38.5
	10	22.0	27.7	34.9
	50	20.7	26.1	32.9
	100	20.2	25.5	32.1
40	1	20.5	25.8	32.5
	10	18.7	23.6	29.7
	50	17.5	22.0	27.7
	100	16.9	21.3	26.9
50	1	17.5	22.0	27.7
	10	15.7	19.7	24.9
	50	14.7	18.5	23.3
	100	14.2	17.8	22.5
60	1	14.7	18.5	23.3
	10	13.2	16.6	20.8
	50	12.1	15.3	19.2
70	1	12.4	15.6	19.6
	10	11.1	14.0	17.6
	50	8.1	10.2	12.8
80	1	10.4	13.1	16.4
	10	7.6	9.6	12.0
	50	-	7.6	9.6
95	1	7.3	9.2	11.6
	10	4.0	5.1	6.4

### Installation Process of POLYTECH™ PPR Pipes

1. Place the right-sized sockets onto the fusion tool (same diameter) and trim your pipe to length with a smooth cut.
2. Plug in the fusion tool to begin the heating process. Wait till the temperature reached about 250°C.
3. Clean the pipe & fitting ends and mark the welding depth on the joining end of the pipe.
4. Confirm that the fusion tool is fully heated and press the PPR pieces straight into their respective sockets.
5. Once the exteriors have been heated, remove the PPR pieces and push them together immediately for about 30s.
6. Put the pipe into service after it has cooled completely. It takes at most 10-15 minutes to cool.

Pipe External Ø (mm)	Welding Depth (mm)	Heating Time (Sec.)	Welding Time (Sec.)	Cooling Time (min)
20	14	5	4	2
25	15	7	4	2
32	16.5	8	6	4
40	18	12	6	4
50	20	18	6	4
63	24	24	8	6
75	26	30	8	8
90	29	40	8	8
110	32	50	10	8

