

DURA MAX PPRC Piping Systems

Keep Yourself Healthy[®]

DURA[®] MAX



Used in manufacturing of the pipes & fittings

Fittings as per DIN 16962



DuraMax has been manufacturing Plastic Water Tanks, UPVC & PPRC Pipes & Fittings, Textile Sliver Cans, Poly-Lights, Road Safety Products and Garbage Containers under its flagship brand "DURA". Since 1992, the company has gone through major changes and since evolved into Dura Polymer Industries.

Dura Polymer Industries is operating under their renowned brand name "DURA MAX", which has been a trademark of reliability and quality for more than three decades. The brand "DURA MAX" has steadily gained nationwide recognition and reputation as one of the leading Plastic Manufacturer across Pakistan. With multiple manufacturing units across the country, we proudly claim to be the largest producer/supplier of Plastic Water Storage Tanks, Pprc pipes and Fittings, Textile Sliver Cans, Poly-Lights, Road Safety Products, and Garbage Containers in Pakistan.

Dura Max PPRC pipes and fittings are manufactured by highly qualified professionals using polypropylene random copolymer in compliance with international standards. Moreover, the offered fitting is available in various specifications as per the specific needs of the clients. Also, this range is available at an affordable price from us.

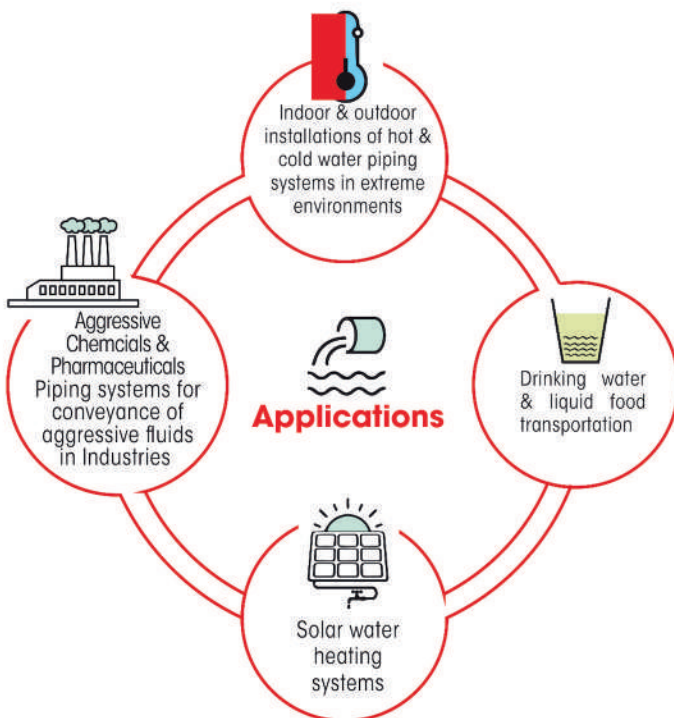
Dura PPRC (Polypropylene Random Copolymer) is superior piping solution with temperature handling capacity from -20°C to 95°C . This is coupled with excellent chemical resistant properties which handles all the major aggressive chemicals in the industry. We use imported virgin raw material in manufacturing of Dura PPR". Ensuring long term hydrostatic pressure resistance and heat/ chemical stability.

Product range • Pipes: 20 to 160 mm • Fittings: 20 to 160 mm • Coil: 20 to 32 mm

Features and benefits

- Proven hot & cold water performance from -20°C to 95°C
- No rust, corrosion. Can withstand higher 'pH' values
- UV resistant triple layered pipes are suitable for outdoor installations that are exposed to direct sunlight
- Good chemical resistance - suitable for most industrial liquids (contact Prince Pipes for chemical chart)
- Heat-fusion jointing results in homogenous plastic system ensuring leak-proof joints
- Very less coefficient of friction, ensures high flow and reduce pumping cost
- Antimicrobial inside layer of 3 layered pipe adds to safety against bacterial growth ensuring safe drinking water
- Specially formulated thermax pipes reduce linear expansion / contraction of pipes due to temperature variance, ensuring suitability for outdoor application

Application note: Insulation is necessary at Hyphenate Sub Zero Temperature.



DURA MAX PPRC TECHNICAL SPECIFICATIONS

PHYSICAL PROPERTIES

Property	Test method	Units	Value
Density, at 27°C	IS 12235 (Part 14)	Kg/m ³	900-910
Melt Flow Rate at 230°C/2.16 kg	IS 13360 Part 4/Sec 1	g/10 min	<0.25

Thermal properties

Property	Test method	Units	Value
Thermal Conductivity	DIN 52612	W/m K	0-24
Specific Heat, at 23°C	Calorimeter	KJ/kg.K	2
Coefficient of Linear Expansion	DIN 53752	mm/M°	1.5 X 10-
VICAT Softening Temperature	ISO 306	C °C	4 132
Melting Temperature Range	ISO 3146	°C	140-150

Mechanical properties

Property	Test method	Units	Value
Tensile Stress at Yield (50mm/minute)	ISO 527-1, 2	MPa	24
Tensile Strain at Yield (50mm/ minute)	ISO 527-1, 2	%	>50
Tensile Modulus (secant)	ISO 527-1, 2	MPa	850
Flexural Modulus	ASTM D 790	MPa	850
Tear Strength	ISO 527	MPa	40
Elongation at Tear	ISO 527	%	800
Shore D Hardness	DIN 53 505	-	65
Pipe Friction Factor	-	-	0.007
CHARPY Impact Strength	ISO179/ 1eA	KJ/ m ²	22
	ISO179/ 1eA	KJ/ m ²	4
	ISO179/ 1eA	KJ/ m ²	2.5

Electrical properties

Property	Test method	Units	Value
Di electric Constant	DIN 53483	-	2.3
Volume Resistivity	DIN 53482	Ohm-cm	> 1 x 10 ¹⁶ ≥
Di Electric Strength	DIN 53481	KV / mm	20

Joining Methods

Process:

- Fusion Welding

Cutting

- Cut the pipe at a right angle to its axis using burr-free cutter
- Ensure that the pipe is free from burrs or cutting chips
- Clean the pipe & fitting perfectly before welding
- Mark welding depth at the end of pipe



Heating

- Mount the suitable dies on the heating element of the welded machine according to the diameter of pipe and fitting to be welded
- Connect the welding machine to 220 volts A.C. power supply
- Select 260°C temperature on the welding machine thermostat
- Wait until the required working temperature is reached
- Insert the pipe and the fitting in the dies by exerting light pressure

Welding

- After heating, quickly insert the pipe into the fitting by exerting light pressure.
- Any misalignment should be corrected immediately after insertion to avoid any stress in the weld.
- Allow the joint to cool as per the cooling time given in table.



Recommended Time for PPRC Fusion Joints

Pipe Dia (mm)	Welding Depth (mm)	Heating Time (Sec)	Welding Time (Sec)	Cooling Time (Min)
20	14.50	6	4	2
25	16.00	7	4	2
32	18.00	8	6	4
40	20.50	12	6	4
50	23.50	18	6	4
63	27.50	24	8	6
75	30.00	30	8	6
90	33.00	40	8	6
110	37.00	50	10	8
160	55.00	60	15	10



PPR-C Pipe

پی پی آر سی پائپ

PN 16 | PN 20

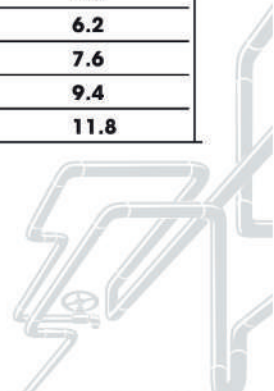
Sizes

25mm
32mm
40mm
50mm
63mm

PRODUCT DIMENSIONS AS PER DIN 8077/78 STANDARDS

PN 16- PN 20 AS PER DIN 8077/78 STANDARDS.

Size (mm)	Minimum Outer Diameter (mm)	Maximum Outer Diameter (mm)	Minimum Wall Thickness (PN-16mm)	Maximum Wall Thickness (PN-16mm)	Minimum Wall Thickness (PN-20mm)	Maximum Wall Thickness (PN-20mm)
25	25	25.3	3.5	4.1	4.2	4.9
32	32	32.3	4.4	5.1	5.4	6.2
40	40	40.4	5.5	6.3	6.7	7.6
50	50	50.5	6.9	7.8	8.3	9.4
63	63	63.6	8.6	9.7	10.5	11.8



Elbow ایلبو



Sizes
25 mm
32 mm
40 mm
50 mm
63 mm

TEE ٹی



Sizes
25 mm
32 mm
40 mm
50 mm
63 mm

Socket ساکت



Sizes
25 mm
32 mm
40 mm
50 mm
63 mm

Female Elbow فی میل ایلبو



Sizes
25 x 1/2"
25 x 3/4"
32 x 1/2"
32 x 3/4"
32 x 1"
40 x 1/4"

Female TEE فی میل ٹی



Sizes
25 x 1/2"
25 x 3/4"
32 x 1/2"
32 x 3/4"
32 x 1"
40 x 1/4"

Female Socket فی میل ساکت



Sizes
25 x 1/2"
25 x 3/4"
32 x 1/2"
32 x 3/4"
32 x 1"
40 x 1 1/4"
50 x 1 1/2"
63 x 2"

Male Elbow میل ایلبو



Sizes
25 x 1/2"
25 x 3/4"
32 x 1/2"
32 x 3/4"
32 x 1"
40 x 1/4"

Male TEE میل ٹی



Sizes
25 x 1/2"
25 x 3/4"
32 x 1/2"
32 x 3/4"
32 x 1"
40 x 1/4"

Male Socket میل ساکت



Sizes
25 x 1/2"
25 x 3/4"
32 x 1/2"
32 x 3/4"
32 x 1"
40 x 1 1/4"
50 x 1 1/2"
63 x 2"

Reducing Elbow ریڈیوسنگ ایلبو



Sizes
25 x 32 mm
25 x 40 mm
32 x 40 mm

Reducing TEE ریڈیوسنگ ٹی



Sizes
25 x 1/2"
25 x 3/4"
32 x 1/2"
32 x 3/4"
32 x 1"
40 x 1/4"

Reducing Socket ریڈیوسنگ ساکت




Sizes
25 x 1/2"
25 x 3/4"
32 x 1/2"
32 x 3/4"
32 x 1"
40 x 1 1/4"
50 x 1 1/2"
63 x 2"

Mixer Elbow مکسر ایلبو



Sizes
25mm

Gate Valve گیٹ والو



Sizes
25mm
32mm
40mm
50mm
63mm

Plug پلگ



Sizes
20 mm (1/2")
25 mm (3/4")
32 mm (1")

End Cap اینڈ کپ



Sizes
25mm
32mm

Clamp کلیمپ



Sizes
25mm
32mm

Nail Clamp نیل کلیمپ



Sizes
25mm
32mm

PPR-C Pipe پی پی آر سی پائپ



Sizes
25mm
32mm
40mm
50mm
63mm

Over Cross اوور کراس



Sizes
25mm
32mm
40mm

UNION یونین



Sizes
25mm
32mm
40mm

