



PP-R PIPE

To Life [+] a Health

PP-R PIPE

Potable water is one of the most important things in our life. The water supply system should influence the water as little as possible. So it is very crucial to choose the sanitary pipe system.

ZHSU PPR pipe and fittings are made from polypropylene Type PP-R, which has excellent sanitary property. And depending on pressure, the pipes can be used in the temperature up to 70°C with an extrapolated service life of more than 50 years. Peak temperature of 100°C arising from short disruptions is unproblematic. So ZHSU PP-R pipes systems are suitable for all different qualities of potable water.

Besides the applications above, ZHSU PP-R pipes systems can also be used in so many other fields as following:

- > Distribution for cool and hot water
- > Pipes to connect kinds of low-temperature heating system
- > Pipes for heating and cooling settings in solar energy system
- > Connecting pipe for air conditioners

Features

- > Healthful, innocuous: the production belongs to green manufacture of building materials, it can be used the piping system of pure water and drinking water.
- > Anticorrosion, anti-encumbrance: using the piping can avoid the rustlings of laver and bathtub which was given rise to by piping rust eaten and it also can avoid the clogging which induce by piping rust eaten.
- > High temperature and pressure resistant: the water temperature that transport by the piping can reach 95°C when working under the long term consecutive working stress.
- > Heat preservation and energy saving: coefficient of heat passage of the piping just as metallic conduit and the heat preservation and energy saving efficiency is very good when used as hot water line.
- > Lightweight: the piping specific gravity of the piping just as one of seven as metallic conduit.
- > Beautiful shape: the inside and outside of the production is very lubricous, fluid resistance is little, color and luster is very meekness and it has attractive appearance.
- > The fitting of the piping is very convenient and credible: adopting hot melts joint, only needs a few ministers and very on the safe side.
- > The working life of piping is very long: its working life can reach at least 50 years under.

Advantages

- > Very good resistance to prolonged stresses combined with pressure and temperature.
- > Long service life, testified non-toxic and sanitary
- > Good resistance to kinds of chemical agents
- > Less noise flow rate than traditional pipes
- > Recyclable, benefit to the environment
- > Simple and reliable connection, such as socket fusion, flange connection, screw joint and other Method

Applications

- > Potable water pipe networks for cold and warm water installations. i.e. in residential buildings, hospitals, hotels, office and school buildings, shipbuilding, etc.
- > Pipe networks for rainwater utilization systems
- > Pipe networks for compressed-air plants
- > Pipe networks for swimming pool facilities
- > Pipe networks for solar plants
- > Pipe networks in agriculture and horticulture
- > Heating pipes for residential house
- > Pipe networks for industry, i.e. transport of aggressive fluids(acids, leys, etc.)
- > Transport of liquid foods

Specification

- > Pipes

Material: Polypropylene Random Copolymer

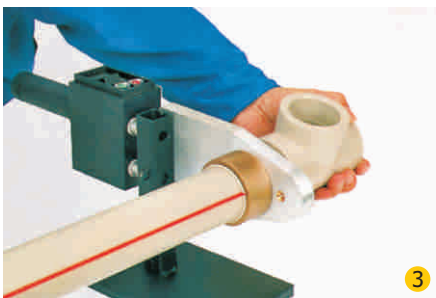
Color: Green or white, other colors depend on customer' demands

Piece length: Overall length of 4 meters as well as coils up to Dn 25mm

Related References: ISO 15874; DIN 8077/78; GB/T 18742

| Diameter Dn,mm | Wall Thickness | | | |
|-------------------|------------------------|-------------|------------|------------|
| | S (20°C Pressure, MPa) | | | |
| | S5(PN 10) | S4(PN 12.5) | S3.2(PN16) | S2.5(PN20) |
| 20 | 2.0 | 2.3 | 2.8 | 3.4 |
| 25 | 2.3 | 2.8 | 3.5 | 4.2 |
| 32 | 2.9 | 3.6 | 4.4 | 5.4 |
| 40 | 3.7 | 4.5 | 5.5 | 6.7 |
| 50 | 4.6 | 5.6 | 6.9 | 8.3 |
| 63 | 5.8 | 7.1 | 8.6 | 10.5 |
| 75 | 6.8 | 8.4 | 10.3 | 12.5 |
| 90 | 8.2 | 10.1 | 12.3 | 15.0 |
| 110 | 10.0 | 12.3 | 15.1 | 18.3 |

Socket Fusion Joint for PP-R Pipelines



- > Cut the pipe rectangularly with pipe cutters. Take care that the pipe axis is free from burrs or cuttings debris and remove where necessary. Mark the welding depth at the end of the pipe according to the socket depth of fittings.
- > Clean the socket and the end spigot with cleansing clothes.
- > After the welding machine reaches the necessary operating temperature, push the end of the pipe and fittings, without turning, up to the welding depth into the welding tool. Heat up the pipe's spigot and fittings' socket according to the following heating time.

The fusion is subject to the following data

| Diameter (mm) | Welding Depth (mm) | Heating Time (s) | Welding Time (s) | Cooling Time (min) |
|---------------|--------------------|------------------|------------------|--------------------|
| 20 | 14.0 | 5 | 4 | 2 |
| 25 | 15.0 | 7 | 4 | 2 |
| 32 | 16.5 | 8 | 6 | 4 |
| 40 | 18.0 | 12 | 6 | 4 |
| 50 | 20.0 | 18 | 6 | 4 |
| 63 | 24.0 | 24 | 8 | 6 |
| 75 | 26.0 | 30 | 8 | 8 |
| 90 | 29.0 | 40 | 8 | 8 |
| 110 | 32.5 | 50 | 10 | 8 |

Remark:

The heating time should comply with the requirement of products and be adjusted according to the working temperature. When the working temperature is below 5°C, the heating time should be extended by 50%.

- > After the heating time, quickly remove the pipe and the fittings from the welding tools. Join them immediately without turning, until the marked welding depth is covered by the bead of PP-R from the fittings.
- > The joint elements have to be fixed during the specified assembly time. After the cooling period, the fused joint is ready for use.

Electro Fusion Joint of PP-R Pipelines

- > Cut the ends the pipes rectangularly and burr them thoroughly.
- > Clean and dry the ends of the pipes at the necessary length.
- > Mark the depth of electro fusion sockets at the end of each pipe.
- > Peel the surface of both pipes with the marks thoroughly with a peeling tools or a lame.
- > Clean the ends of pipes again thoroughly.
- > Clean the inner surface of the electro fusion sockets with cleansing clothes.
- > Push the prepared pipe into the electro fusion sockets, align and restrain the fittings to the pipes.
- > Start and monitor the fusion process. When there is melt flowing in the observation hole, turn off the current, the heating is completed.

Remark:

The heating time should comply with the requirement of products and be adjusted according to the working temperature.

The relationship between electric welding heating time and working temperature is as follows .Heating time needn't be adjusted if electro fusion welding machine can adjust th temperature automatically.

| Working Temperature (°C) | -10 | 0 | 10 | 20 | 30 | 40 | 50 |
|--------------------------|-------|-------|-------|----|-------|-------|-------|
| Revise | 1.12T | 1.08T | 1.04T | T | 0.96T | 0.92T | 0.88T |

- > Cooling to specified time, do not move or stress the pipe and fittings during the whole fusion process including cooling time.

Flange Joint PP-R Pipelines

- > Wrap the PP-R pipe with the metal flange tray in advance.
- > Connect the PP-R pipe and flange faucet by heating welding.
- > Wrap the flange faucet with the metal flange tray.
- > Keep the flange of PP-R pipe and flange of steel pipe vertical to the axes of pipes.
- > Add the washer between the two flanges, the washer should be heat resistant and meet the sanitary requirement.
- > Set up the brackets, connect the two flanges with the same size bolt in one direction. The bolt should be tighten without coaxial tension.

Flange Joint Illustration

Unit:mm

| Dn | 40 | 50 | 63 | 75 | 90 | 110 |
|----|----|----|-----|------|-------|-------|
| A | 78 | 87 | 100 | 122 | 140 | 166 |
| B | 27 | 30 | 34 | 38 | 42 | 50 |
| C | 50 | 60 | 75 | 99.5 | 119.4 | 146.0 |

Hydrostatic Pressure Performance

To plot the hydrostatic pressure performance graph(table 1) independently of dimensions,the hoop stress(σ)is calculated according to the formula

$$\sigma = \frac{P(d-e)}{2e}$$

P=internal pressure

d=the external pipe diameter of pipe(mm)

e-the wall thickness of the pipe(mm)

With all water carrying pipes,resistance to internal pressure is an important factor, which affects long life characteristics. To therefore assure the optimum in long life performance, straight and curved ZHSU-pipes have been subjected to extensive hydrostatic pressure testing at a variety of different temperatures. The results,and the success of these tests can be seen in the table 1.

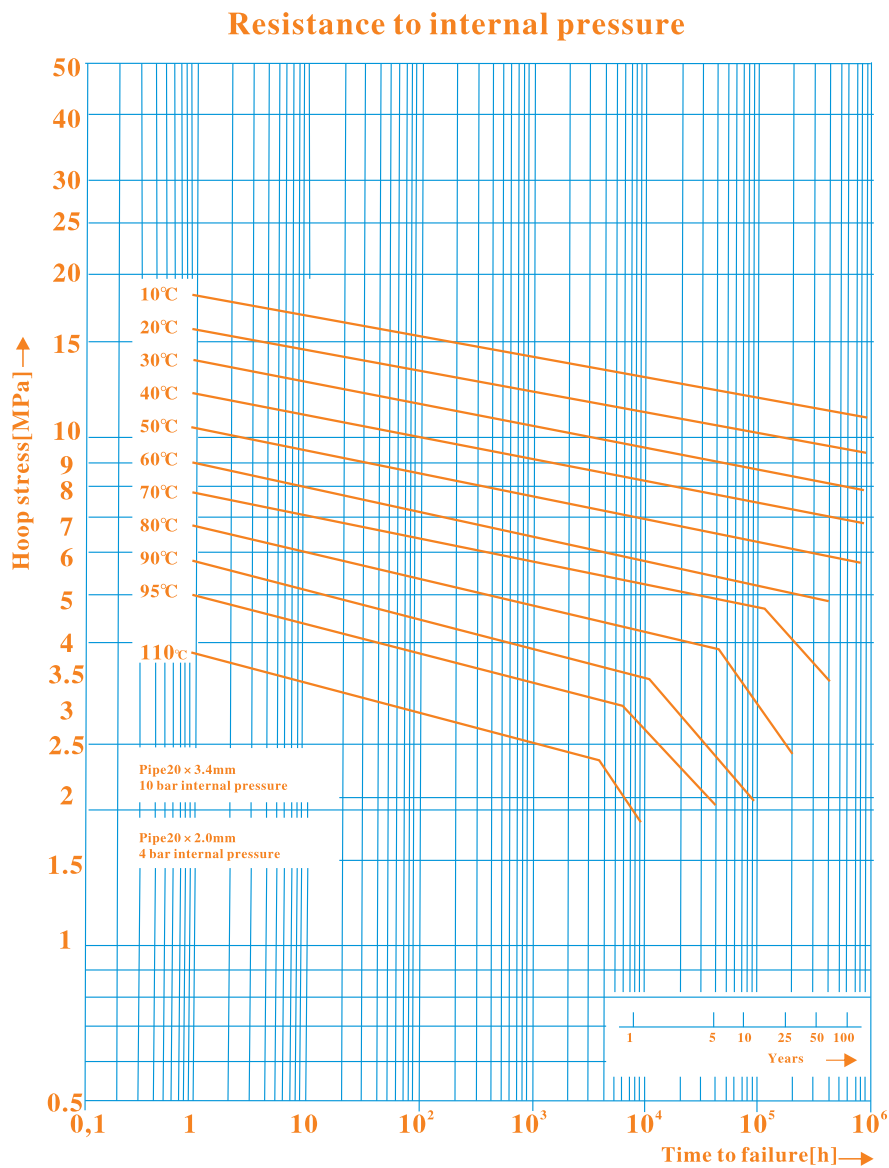


Table 1

Permissible Working Pressure

The table lists the permissible working pressure for pipes with different pressure class under specific temperature and word life. The data is calculated from formula and table 1.

Under normal work pressure and condition, the life of ZHSU-pipe system can reach 50 years at least!

| Temperature | Service Life (Year) | Pipe S 5 | | Pipe S 3.2 | | Pipe S 2.5 | |
|-------------|---------------------|--------------------------------------|--------|--------------|--------|------------|--------|
| | | Pipe SDR 11 | | Pipe SDR 7.4 | | Pipe SDR 6 | |
| | | Pipe PN 10 | | Pipe PN 16 | | Pipe PN 20 | |
| | | Permissible Working Pressure, in Bar | | | | | |
| | | SF=1.25 | SF=1.5 | SF=1.25 | SF=1.5 | SF=1.25 | SF=1.5 |
| 10°C | 1 | 21.1 | 1.6 | 33.4 | 27.8 | 42.0 | 35.0 |
| | 5 | 20.0 | 16.6 | 31.6 | 26.4 | 39.8 | 33.2 |
| | 10 | 19.3 | 16.1 | 30.6 | 25.5 | 38.5 | 32.1 |
| | 25 | 18.7 | 15.6 | 29.6 | 24.7 | 37.3 | 31.1 |
| | 50 | 18.2 | 15.2 | 28.8 | 24.0 | 36.3 | 30.3 |
| | 100 | 17.7 | 14.8 | 28.1 | 23.4 | 35.4 | 29.5 |
| 20°C | 1 | 18.0 | 15.0 | 28.6 | 23.8 | 36.0 | 30.0 |
| | 5 | 16.9 | 14.1 | 26.8 | 22.3 | 33.8 | 28.1 |
| | 10 | 16.4 | 13.7 | 26.1 | 21.7 | 32.8 | 27.3 |
| | 25 | 16.0 | 13.3 | 25.3 | 21.1 | 31.8 | 26.5 |
| | 50 | 15.5 | 12.9 | 24.5 | 20.4 | 30.9 | 25.7 |
| | 100 | 15.0 | 12.5 | 23.8 | 19.8 | 29.9 | 24.9 |
| 30°C | 1 | 15.3 | 12.8 | 24.3 | 20.2 | 30.6 | 25.5 |
| | 5 | 14.4 | 12.0 | 22.8 | 19.0 | 28.7 | 23.9 |
| | 10 | 13.9 | 11.6 | 22.0 | 18.3 | 27.7 | 23.1 |
| | 25 | 13.4 | 11.2 | 21.3 | 17.1 | 26.8 | 22.3 |
| | 50 | 13.1 | 10.9 | 20.7 | 17.3 | 26.1 | 21.8 |
| | 100 | 12.8 | 10.6 | 20.2 | 16.9 | 25.5 | 21.2 |
| 40°C | 1 | 12.9 | 10.8 | 20.5 | 17.1 | 25.8 | 21.5 |
| | 5 | 12.1 | 10.1 | 19.2 | 16.0 | 24.2 | 20.2 |
| | 10 | 11.8 | 9.8 | 18.7 | 15.6 | 23.6 | 19.6 |
| | 25 | 11.3 | 9.4 | 18.0 | 15.0 | 22.6 | 18.8 |
| | 50 | 11.0 | 9.2 | 17.5 | 14.5 | 22.0 | 18.3 |
| | 100 | 10.7 | 8.9 | 16.9 | 14.1 | 21.3 | 17.8 |
| 50°C | 1 | 11.0 | 9.2 | 17.5 | 14.5 | 22.0 | 18.3 |
| | 5 | 10.2 | 8.5 | 16.2 | 13.5 | 20.4 | 17.0 |
| | 10 | 9.9 | 8.2 | 15.7 | 13.1 | 19.7 | 16.5 |
| | 25 | 9.6 | 8.0 | 15.2 | 12.6 | 19.1 | 15.9 |
| | 50 | 9.3 | 7.7 | 14.7 | 12.2 | 18.5 | 15.4 |
| | 100 | 8.9 | 7.4 | 14.2 | 11.8 | 17.8 | 14.9 |
| 60°C | 5 | 9.3 | 7.7 | 14.7 | 12.2 | 18.5 | 15.4 |
| | 10 | 8.6 | 7.2 | 13.7 | 11.4 | 17.2 | 14.3 |
| | 25 | 8.3 | 6.9 | 13.2 | 11.0 | 16.6 | 13.8 |
| | 50 | 8.0 | 6.7 | 12.6 | 10.5 | 15.9 | 13.3 |
| | 100 | 7.7 | 6.4 | 12.1 | 10.1 | 15.3 | 12.7 |
| | 1 | 7.8 | 6.5 | 12.4 | 10.3 | 15.6 | 13.0 |
| 70°C | 5 | 7.2 | 6.0 | 11.4 | 9.5 | 14.3 | 11.9 |
| | 10 | 7.0 | 5.9 | 11.1 | 9.3 | 14.4 | 11.7 |
| | 25 | 6.1 | 5.1 | 9.6 | 8.0 | 12.1 | 10.1 |
| | 50 | 5.1 | 4.3 | 8.1 | 6.7 | 10.2 | 8.5 |
| | 1 | 6.5 | 5.5 | 10.4 | 8.6 | 13.1 | 10.9 |
| | 5 | 5.7 | 4.8 | 9.1 | 7.6 | 11.5 | 9.6 |
| 80°C | 10 | 4.8 | 4.0 | 7.6 | 6.3 | 9.6 | 8.0 |
| | 25 | 3.8 | 3.2 | 6.1 | 5.1 | 7.6 | 6.4 |
| | 1 | 4.6 | 3.9 | 7.3 | 6.1 | 9.2 | 7.7 |
| | 5 | 3.0 | 2.5 | 4.8 | 4.0 | 6.1 | 5.0 |
| 95°C | 10 | 2.6 | 2.1 | 4.0 | 3.4 | 5.1 | 4.2 |

SDR=Standard Dimension Ratio(diameter/wall thickness ratio)

SDR=2×S+1≈d/s(S=Pipeseries index from ISO 4065)


















SF=Safety-factor

Chemical Resistance

Chemical resistance is one of the remarkable properties of the ZHSU-pipe system. However, the chemical resistance of the nickel-plated brass inserts may not be comparable with the chemical resistance of a pure PP-R pipe system. As these metal compound fittings may not be suitable for all industry applications of the ZHSU-pipe system, it is advisable to use ZHSU-flange socket.

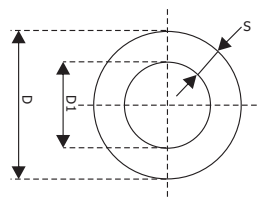
Compliance With The System Standard

The quality of ZHSU-pipe system complies with the requirements of various national and international independent authorities and institutions.

| | | | |
|-----------|---|-------------|---|
| Argentina |  | Kuwait |  |
| Australia |  | Malaysia |  |
| Austria |  | Netherlands | kiwa |
| Belgium |  | Poland |  |
| Canada |  | Qatar |  |
| France |  | Spain |  |
| Germany |  | Switzerland |  |
| Greece |  | Turkey |  |
| Italy |  | USA |  |

PP-R Pipe

PIPE



Pipes Series:SDR11/S5/PN10 Color:White、Grey、 Green Form Supplied:4M Straight Lengths

| Pipe | | | Diameter | Wall Thickness | Internal Diameter |
|---------|-----------|--------------|----------|----------------|-------------------|
| Art-No. | Dimension | Packing Unit | D | S | D ₁ |
| | | | mm | mm | mm |
| 10020 | 20mm | 120m | 20 | 2.0 | 16.0 |
| 10025 | 25mm | 80m | 25 | 2.3 | 20.4 |
| 10032 | 32mm | 52m | 32 | 2.9 | 26.2 |
| 10040 | 40mm | 32m | 40 | 3.7 | 32.6 |
| 10050 | 50mm | 20m | 50 | 4.6 | 40.8 |
| 10063 | 63mm | 12m | 63 | 5.8 | 51.4 |
| 10075 | 75mm | 8m | 75 | 6.8 | 61.4 |
| 10090 | 90mm | 4m | 90 | 8.2 | 73.6 |
| 10110 | 110mm | 4m | 110 | 10.0 | 90.0 |

Pipes Series:SDR9/S4.0/PN12.5 Color:White、Grey、 Green Form Supplied:4M Straight Lengths

| Pipe | | | Diameter | Wall Thickness | Internal Diameter |
|---------|-----------|--------------|----------|----------------|-------------------|
| Art-No. | Dimension | Packing Unit | D | S | D ₁ |
| | | | mm | mm | mm |
| 11020 | 20mm | 120m | 20 | 2.3 | 15.4 |
| 11025 | 25mm | 80m | 25 | 2.8 | 19.4 |
| 11032 | 32mm | 52m | 32 | 3.6 | 24.8 |
| 11040 | 40mm | 32m | 40 | 4.5 | 31.0 |
| 11050 | 50mm | 20m | 50 | 5.6 | 38.8 |
| 11063 | 63mm | 12m | 63 | 7.1 | 48.8 |
| 11075 | 75mm | 8m | 75 | 8.4 | 58.2 |
| 11090 | 90mm | 4m | 90 | 10.1 | 69.8 |
| 11110 | 110mm | 4m | 110 | 12.3 | 85.4 |

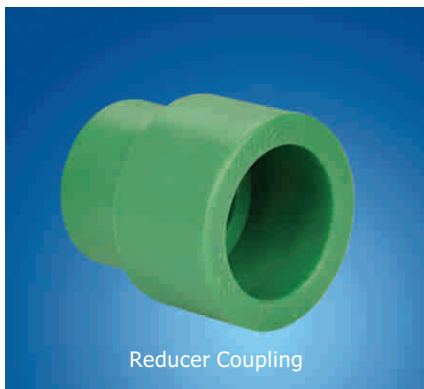
Pipes Series:SDR7.4/S3.2/PN16 Color:White、Grey、 Green Form Supplied:4M Straight Lengths

| Pipe | | | Diameter | Wall Thickness | Internal Diameter |
|---------|-----------|--------------|----------|----------------|-------------------|
| Art-No. | Dimension | Packing Unit | D | S | D ₁ |
| | | | mm | mm | mm |
| 12020 | 20mm | 120m | 20 | 2.8 | 14.4 |
| 12025 | 25mm | 80m | 25 | 3.5 | 18.0 |
| 12032 | 32mm | 52m | 32 | 4.4 | 23.0 |
| 12040 | 40mm | 32m | 40 | 5.5 | 28.8 |
| 12050 | 50mm | 20m | 50 | 6.9 | 36.2 |
| 12063 | 63mm | 12m | 63 | 8.6 | 45.6 |
| 12075 | 75mm | 8m | 75 | 10.3 | 54.4 |
| 12090 | 90mm | 4m | 90 | 12.3 | 65.4 |
| 12110 | 110mm | 4m | 110 | 15.1 | 79.8 |

Pipes Series:SDR6/S2.5/PN20 Color:White、Grey、 Green Form Supplied:4M Straight Lengths

| Pipe | | | Diameter | Wall Thickness | Internal Diameter |
|---------|-----------|--------------|----------|----------------|-------------------|
| Art-No. | Dimension | Packing Unit | D | S | D ₁ |
| | | | mm | mm | mm |
| 13020 | 20mm | 120m | 20 | 3.4 | 13.2 |
| 13025 | 25mm | 80m | 25 | 4.2 | 16.6 |
| 13032 | 32mm | 52m | 32 | 5.4 | 21.2 |
| 13040 | 40mm | 32m | 40 | 6.7 | 26.6 |
| 13050 | 50mm | 20m | 50 | 8.3 | 33.4 |
| 13063 | 63mm | 12m | 63 | 10.5 | 42.0 |
| 13075 | 75mm | 8m | 75 | 12.5 | 50.0 |
| 13090 | 90mm | 4m | 90 | 15.0 | 60.0 |
| 13110 | 110mm | 4m | 110 | 18.3 | 73.4 |

PP-R Pipe Fitting



Reducer Coupling

| Specification Dn(mm) | Packaging (Pcs / Carton) |
|-------------------------|-----------------------------|
| 25×20 | 1100 |
| 32×20 | 1000 |
| 32×25 | 640 |
| 40×20 | 520 |
| 40×25 | 520 |
| 40×32 | 300 |
| 50×20 | 300 |
| 50×25 | 300 |
| 50×32 | 300 |
| 50×40 | 200 |
| 63×20 | 150 |
| 63×25 | 150 |
| 63×32 | 150 |
| 63×40 | 150 |

| Specification Dn(mm) | Packaging (Pcs / Carton) |
|-------------------------|-----------------------------|
| 63×50 | 120 |
| 75×32 | 108 |
| 75×40 | 108 |
| 75×50 | 108 |
| 75×63 | 75 |
| 90×40 | 66 |
| 90×50 | 66 |
| 90×63 | 66 |
| 90×75 | 51 |
| 110×50 | 32 |
| 110×63 | 32 |
| 110×75 | 32 |
| 110×90 | 27 |



Tee Reducer Coupling

| Specification Dn(mm) | Packaging (Pcs / Carton) |
|-------------------------|-----------------------------|
| 25×20×25 | 500 |
| 32×20×32 | 330 |
| 32×25×32 | 300 |
| 40×20×40 | 200 |
| 40×25×40 | 184 |
| 40×32×40 | 168 |
| 50×20×50 | 128 |
| 50×25×50 | 128 |
| 50×32×50 | 114 |
| 50×40×50 | 100 |
| 63×20×63 | 72 |
| 63×25×63 | 72 |
| 63×32×63 | 60 |
| 63×40×63 | 54 |

| Specification Dn(mm) | Packaging (Pcs / Carton) |
|-------------------------|-----------------------------|
| 63×50×63 | 54 |
| 75×32×75 | 44 |
| 75×40×75 | 44 |
| 75×50×75 | 36 |
| 75×63×75 | 33 |
| 90×40×90 | 24 |
| 90×50×90 | 24 |
| 90×63×90 | 20 |
| 90×75×90 | 18 |
| 110×50×110 | 12 |
| 110×63×110 | 12 |
| 110×75×110 | 12 |
| 110×90×110 | 12 |



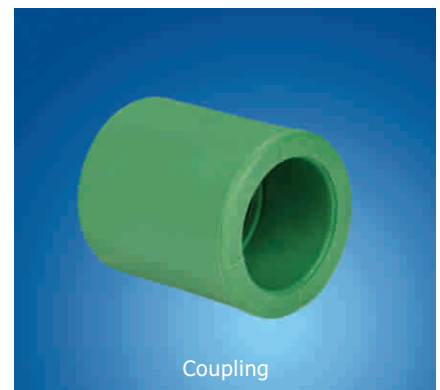
90° Elbow

| Specification Dn(mm) | Packaging (Pcs / Carton) |
|-------------------------|-----------------------------|
| 20 | 1000 |
| 25 | 550 |
| 32 | 300 |
| 40 | 200 |
| 50 | 108 |
| 63 | 54 |
| 75 | 35 |
| 90 | 20 |
| 110 | 12 |



Tee Coupling

| Specification Dn(mm) | Packaging (Pcs / Carton) |
|-------------------------|-----------------------------|
| 20 | 700 |
| 25 | 420 |
| 32 | 250 |
| 40 | 150 |
| 50 | 84 |
| 63 | 46 |
| 75 | 25 |
| 90 | 16 |
| 110 | 8 |



Coupling

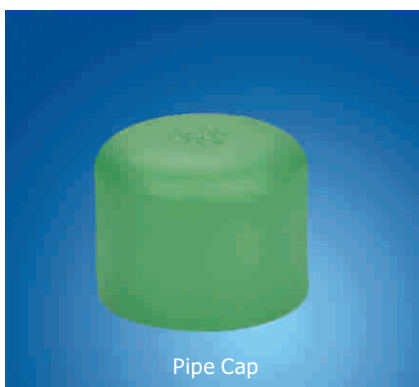
| Specification Dn(mm) | Packaging (Pcs / Carton) |
|-------------------------|-----------------------------|
| 20 | 1800 |
| 25 | 1000 |
| 32 | 600 |
| 40 | 300 |
| 50 | 200 |
| 63 | 100 |
| 75 | 66 |
| 90 | 44 |
| 110 | 22 |

PP-R Pipe Fitting



45° Elbow

| Specification Dn(mm) | Packaging (Pcs / Carton) |
|-------------------------|-----------------------------|
| 20 | 1200 |
| 25 | 700 |
| 32 | 400 |
| 40 | 220 |
| 50 | 120 |
| 63 | 60 |
| 75 | 45 |
| 90 | 24 |
| 110 | 12 |



Pipe Cap

| Specification Dn(mm) | Packaging (Pcs / Carton) |
|-------------------------|-----------------------------|
| 20 | 2500 |
| 25 | 1500 |
| 32 | 920 |
| 40 | 520 |
| 50 | 345 |
| 63 | 168 |
| 75 | 88 |
| 90 | 55 |
| 110 | |



Unequal Elbow

| Specification Dn(mm) | Packaging (Pcs / Carton) |
|-------------------------|-----------------------------|
| 25×20 | 700 |
| 32×20 | 500 |
| 32×25 | 400 |
| | |
| | |
| | |
| | |
| | |
| | |



Female Threaded Coupling

| Specification Dn(mm) | Packaging (Pcs / Carton) |
|-------------------------|-----------------------------|
| 20×1/2" | 320 |
| 20×3/4" | 200 |
| 25×1/2" | 320 |
| 25×3/4" | 220 |
| 32×1/2" | 240 |
| 32×3/4" | 160 |
| 32×1" | 80 |
| 40×1-1/4" | 56 |
| 50×1-1/2" | 36 |
| 63×2" | 24 |



Female Threaded Elbow

| Specification Dn(mm) | Packaging (Pcs / Carton) |
|-------------------------|-----------------------------|
| 20×1/2" | 200 |
| 25×1/2" | 200 |
| 25×3/4" | 160 |
| 32×1/2" | 120 |
| 32×3/4" | 120 |
| 32×1" | 72 |
| 40×1-1/4" | 52 |
| 50×1-1/2" | 36 |
| 63×2" | 16 |



Tee Female Threaded Coupling

| Specification Dn(mm) | Packaging (Pcs / Carton) |
|-------------------------|-----------------------------|
| 20×1/2" | 200 |
| 25×1/2" | 150 |
| 25×3/4" | 130 |
| 32×1/2" | 96 |
| 32×3/4" | 96 |
| 32×1" | 60 |
| 40×1-1/4" | 40 |
| 50×1-1/2" | 26 |
| 63×2" | 15 |

PP-R Pipe Fitting



Male Threaded Coupling

| Specification Dn(mm) | Packaging (Pcs / Carton) |
|-------------------------|-----------------------------|
| 20×1/2" | 220 |
| 20×3/4" | 180 |
| 25×1/2" | 200 |
| 25×3/4" | 180 |
| 32×1/2" | 140 |
| 32×3/4" | 160 |
| 32×1" | 72 |
| 40×1-1/4" | 48 |
| 50×1-1/2" | 32 |
| 63×2" | 24 |



Male Threaded Elbow

| Specification Dn(mm) | Packaging (Pcs / Carton) |
|-------------------------|-----------------------------|
| 20×1/2" | 200 |
| 25×1/2" | 160 |
| 25×3/4" | 140 |
| 32×1/2" | 120 |
| 32×3/4" | 110 |
| 32×1" | 70 |
| 40×1-1/4" | 40 |
| 50×1-1/2" | 28 |
| 63×2" | 16 |



Tee Male Threaded Coupling

| Specification Dn(mm) | Packaging (Pcs / Carton) |
|-------------------------|-----------------------------|
| 20×1/2" | 160 |
| 25×1/2" | 130 |
| 25×3/4" | 100 |
| 32×1/2" | 90 |
| 32×3/4" | 84 |
| 32×1" | 48 |
| 40×1-1/4" | 40 |
| 50×1-1/2" | 24 |
| 63×2" | 12 |



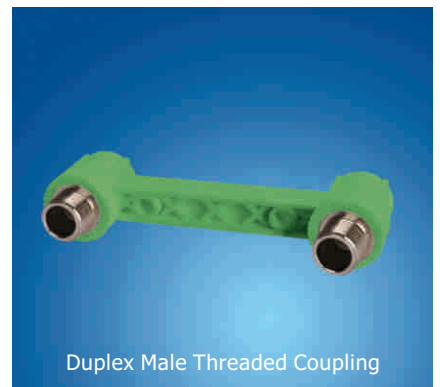
Female Threaded Union

| Specification Dn(mm) | Packaging (Pcs / Carton) |
|-------------------------|-----------------------------|
| 20×1/2" | 200 |
| 25×3/4" | 150 |
| 32×1" | 100 |
| 40×1-1/4" | 56 |
| 50×1-1/2" | 36 |
| 63×2" | 24 |



Duplex Female Threaded Coupling

| Specification Dn(mm) | Packaging (Pcs / Carton) |
|-------------------------|-----------------------------|
| 20×1/2" | 55 |
| 25×1/2" | 50 |
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Duplex Male Threaded Coupling

| Specification Dn(mm) | Packaging (Pcs / Carton) |
|-------------------------|-----------------------------|
| 20×1/2" | / |
| 25×1/2" | / |
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PP-R Pipe Fitting



Duplex Female Threaded Elbow

| Specification Dn(mm) | Packaging (Pcs / Carton) |
|-------------------------|-----------------------------|
| 20×1/2" | 42 |
| 25×1/2" | 30 |
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Duplex Male Threaded Elbow

| Specification Dn(mm) | Packaging (Pcs / Carton) |
|-------------------------|-----------------------------|
| 20×1/2" | / |
| 25×1/2" | / |
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Duplex Tee Female Threaded Coupling

| Specification Dn(mm) | Packaging (Pcs / Carton) |
|-------------------------|-----------------------------|
| 20×1/2" | 30 |
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Duplex Tee Male Threaded Coupling

| Specification Dn(mm) | Packaging (Pcs / Carton) |
|-------------------------|-----------------------------|
| 20×1/2" | / |
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Female Threaded Elbow With Disk

| Specification Dn(mm) | Packaging (Pcs / Carton) |
|-------------------------|-----------------------------|
| 20×1/2" | 150 |
| 25×1/2" | 120 |
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Male Threaded Elbow With Disk

| Specification Dn(mm) | Packaging (Pcs / Carton) |
|-------------------------|-----------------------------|
| 20×1/2" | 120 |
| 25×1/2" | 100 |
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PP-R Pipe Fitting



Cross

| Specification Dn(mm) | Packaging (Pcs / Carton) |
|----------------------|--------------------------|
| 20 | / |
| 25 | / |
| 32 | / |
| 40 | / |
| 50 | / |
| 63 | / |
| | |
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| | |



Male Threaded Union

| Specification Dn(mm) | Packaging (Pcs / Carton) |
|----------------------|--------------------------|
| 20×1/2" | 200 |
| 25×3/4" | 150 |
| 32×1" | 100 |
| 40×1-1/4" | 48 |
| 50×1-1/2" | 32 |
| 63×2" | 24 |
| | |
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Plastic Union

| Specification Dn(mm) | Packaging (Pcs / Carton) |
|----------------------|--------------------------|
| 20 | 560 |
| 25 | 300 |
| 32 | 200 |
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Stop Valve

| Specification Dn(mm) | Packaging (Pcs / Carton) |
|----------------------|--------------------------|
| 20 | 80 |
| 25 | 60 |
| 32 | 50 |
| 40 | 32 |
| 50 | 18 |
| 63 | 10 |
| 75 | 8 |
| 90 | 4 |
| 110 | 3 |
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Heating Melted Ball Valve Of Inner Screw In Active Joint

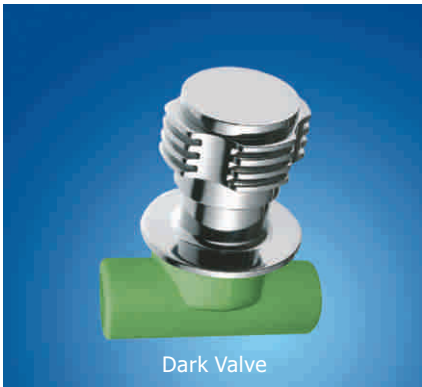
| Specification Dn(mm) | Packaging (Pcs / Carton) |
|----------------------|--------------------------|
| 20 | / |
| 25 | / |
| 32 | / |
| 40 | / |
| 50 | / |
| 63 | / |
| | |
| | |
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| | |



Double Active Joints Heating Melted Ball Valve

| Specification Dn(mm) | Packaging (Pcs / Carton) |
|----------------------|--------------------------|
| 20 | 64 |
| 25 | 32 |
| 32 | 25 |
| 40 | 16 |
| 50 | 8 |
| 63 | 8 |
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PP-R Pipe Fitting



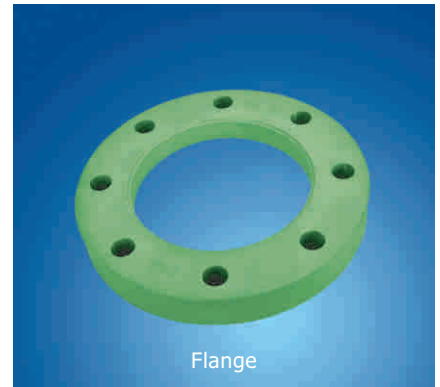
Dark Valve

| Specification Dn(mm) | Packaging (Pcs / Carton) |
|-------------------------|-----------------------------|
| 20 | 27 |
| 25 | 27 |
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Flange Core

| Specification Dn(mm) | Packaging (Pcs / Carton) |
|-------------------------|-----------------------------|
| 32 | / |
| 40 | / |
| 50 | / |
| 63 | / |
| 75 | / |
| 90 | / |
| 110 | / |
| | |
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| | |



Flange

| Specification Dn(mm) | Packaging (Pcs / Carton) |
|-------------------------|-----------------------------|
| 32 | / |
| 40 | / |
| 50 | / |
| 63 | / |
| 75 | / |
| 90 | / |
| 110 | / |
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Pipe Plug

| Specification Dn(mm) | Packaging (Pcs / Carton) |
|-------------------------|-----------------------------|
| 20 | 3000 |
| 25 | 1200 |
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Long Type Bend Pipe

| Specification Dn(mm) | Packaging (Pcs / Carton) |
|-------------------------|-----------------------------|
| 20 | 270 |
| 25 | 180 |
| 32 | 120 |
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Short Type Bend Pipe

| Specification Dn(mm) | Packaging (Pcs / Carton) |
|-------------------------|-----------------------------|
| 20 | 480 |
| 25 | 350 |
| 32 | 200 |
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PP-R Pipe Fitting



Long Feet Pipe Block

| Specification Dn(mm) | Packaging (Pcs / Carton) |
|----------------------|--------------------------|
| 20 | 1000 |
| 25 | 1000 |
| 32 | 800 |
| 40 | 700 |
| 50 | 500 |
| 63 | 400 |
| 75 | 150 |
| 90 | 120 |
| 110 | 120 |
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U Type Pipe Clamp (Short Feet)

| Specification Dn(mm) | Packaging (Pcs / Carton) |
|----------------------|--------------------------|
| 20 | 2400 |
| 25 | 2000 |
| 32 | 1000 |
| 40 | / |
| 50 | / |
| 63 | / |
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Pipe Cutter
20-40mm

Pipe Cutter
50-125mm

| Specification Dn(mm) | Packaging (Pcs / Carton) |
|----------------------|--------------------------|
| 20-40mm | 40 |
| 50-125mm | 5 |
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Welding Tools

| Specification Dn(mm) | Packaging (Sets /Carton) |
|----------------------|--------------------------|
| 20-32 | 5 |
| 20-63 | 3 |
| 75-110 | 3 |
| 160 | 2 |
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