

# Manufacturers and Suppliers of Multilayer Pipes & Fittings





# MULTILAYER COMPOSITE PIPING SYSTEMS

Prime Pex Piping Systems is an advanced piping systems company engaged in manufacturing, import and marketing of Multilayer Composite Piping systems, also known as PE-AL-PE Pipes and MLC Pipes. Prime Pex's Multilayer pipes combine the advantages of both metal and thermoplastic materials and at the same time eliminate the disadvantages associated with these materials. The pipe's unique composition makes it bendable without springing back giving it various advantages over traditional piping systems and are used in Residential, Commercial and Industrial sectors for multiple applications such as hot & cold water, drinking water, solar water and domestic & industrial gas supply, compressed air supply and underfloor heating & cooling systems.



Prime Pex is a solutions-driven brand with an aim to provide World-class products to the Indian market. Our products have been developed based on years of Industry experience & customer feedback and with a design philosophy of having high quality and high durability products that are easy to install and use. All our products are manufactured using advanced processes and high-quality raw materials. As a result, Prime Pex products have Industry-leading features and quality.

We are located in Jamnagar, Gujarat and have a network of Dealers across India to make our piping systems available closest to you.





# PRIME PEX AQUALINK

FOR HOT & COLD WATER, DRINKING WATER SOLAR WATER AND HVAC SYSTEM...

# PRIME PEX GASLINK

FOR LPG, NATURAL GAS AND INDUSTRIAL GASES...





# PRIME PEX AIRLINK

FOR COMPRESSED AIR, VACUM AND INDUSTRIAL WATER SYSTEM...



**THERMAL CONDUCTIVITY**: The thermal conductivity of the Prime Pex multilayer pipe is 0.45 W/m-k, about 1/100 than that of steel pipe, but only several times higher than that of insulation material. No need of insulation with our Prime Pex Pipes.

**CHEMICAL RESISTANCE**: The inside and outside polyethylene is a symmetrical & non polar material with a stable characteristic. At normal temperature, it does not dissolve in any solution and is resistant against various kinds of acids, alkalis & salts.

**BURNING RESISTANCE:** The metal layer on the inside makes the pipe flame-resistant and the flue gases from burning polyethylene are very low density without damaging any components.

**HEALTH AND ECOLOGY:** The material used to manufacture system components are physiologically and micro biologically neutral in drinking water installations; they are friendly to the environment and health-PZH approved

**HYGIENIC PROPERTY:** They are hygienic, rust free, non-toxic & resist growth of micro-organisms. Thus, these pipes prevent contamination of water. As medical & oxygen supply pipes, they are absolutely safe and the purity of the media these pipes carry maintained at all the times.

**INSTALLATION**: These pipes are bendable but never spring back and do not deform under pressure. They can be directly installed from 50 to 200 meters; decrease the need for a lot of fittings and attachments, are easy to install and save a lot of installation time.

**DURABILITY:** The middle aluminum layer is resistant to oxygen, and the outer layer of PE is allowed to add antioxidants and light to prevent secondary pollution of water bodies.

**AGING RESISTANCE**: Anti-aging compared with PPR contains a large number of tertiary carbon atoms, it is susceptible to aging due to the action of light and oxygen impurities.

**OTHER ADVANTAGES:** The core layer of aluminum guarantees static resistance, lightness and gas & oxygen tightness. It also prevents growth of microorganisms inside the pipe and ensures safety in water and gas supply. Not effected by frost and its high thermal preservation saves energy thus enhancing the efficiency of the system.

# PRIME PEX AQUA LINK



Prime Pex Agua link is a Multilayer Composite Piping system which combines the advantages of its metal and thermoplastic materials and at the same time eliminates the disadvantages associated with these materials.

Prime Pex Agua link is the latest innovation in piping systems being the ideal choice for Hot & Cold Water, Solar Water, Drinking Water, HVAC Systems and Underfloor Heating & Cooling systems. It is manufactured as per the latest International standards and adhere to stringent quality control procedures resulting in a world class product.

Multilayer Composite pipes have many benefits such as -light weight, bendability and no need to weld, glue or thread. It is also economical in the long run and have a longer working life when compared to traditional piping systems such as Copper, Galvanized Iron and CPVC.

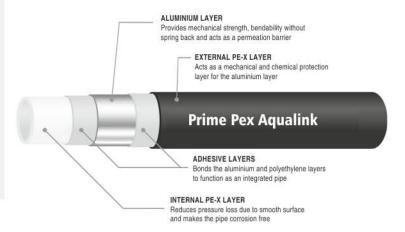
The installation time is significantly reduced compared to the traditional pipes leading to increased productivity and further reduction in the overall costs of the piping system.

| Size<br>(mm) | Size<br>(Inch) | Coil<br>Lenth | Aluminium<br>Thickness | Working<br>Temperature |
|--------------|----------------|---------------|------------------------|------------------------|
| 1216         | 1/2"           | 200           | 0.21                   | -20°c to - 80°c        |
| 1620         | 3/4"           | 200           | 0.25                   | -40°c to - 100°c       |
| 2025         | 1"             | 100           | 0.28                   | -40°c to - 100°c       |
| 2632         | 11/4"          | 100           | 0.35                   | -40°c to - 100°c       |
| 3240         | 17             | 50            | 0.40                   | -40°c to - 100°c       |

# Advantages

- Long Service life of at least 50 years.
- springing back to its original shape
- Minimum Fittings use of elbows and couplers is reduced by Light weight 1/3rd weight compared to copper pipes and upto 95% due to bendability and long length of pipe coil
- Permeation barrier layer aluminium acts as a permanent
   UV Stabilized for an increased durability of pipes against barrier to the passage of alien substances
- Simple installation quick and clean installation with only Corrosion resistance Pipes have total resistance to corrosion basic tools, no welding, solvent cement or thread cutting required
- Minimum pressure loss minimum friction due to a smooth inner surface

# **Pipe Composition**



- Fire Retardant
- Bendability pipes can be bent manually by hand, without Thermal linear expansion upto 9 times less compared to plastic pipes and similar to that of metal pipes
  - 1/10th of steel pipes
  - direct sunlight exposure.
  - and construction materials

# **Applications**

- Hot & Cold Water supply
- Drinking Water supply
- · Solar Water supply

- Underfloor Heating & Cooling systems
- Chilled Water supply
- Industrial Water supply





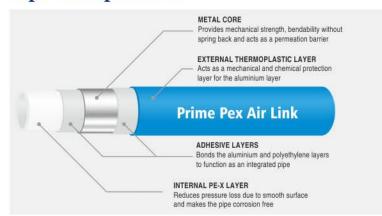
Prime Pex Air link is an innovative, next generation thermoplastic pneumatic piping system which combines the advantages of its metal and thermoplastic materials and at the same time eliminates the disadvantages associated with these materials.

Prime Pex Air link is the latest innovation in piping systems being the ideal choice for Compressed Air, Vacuum, Inert Gases, Chilled Water and Industrial Water systems. It is manufactured as per the latest International standards and adhere to stringent quality control procedures resulting in a world class product.

| Prime Pex Air link Pipes have many benefits such as - light    |  |  |
|--|--|--|
| weight, bendability and no need to weld, glue or thread. It is |  |  |
| also economical when compared to traditional piping            |  |  |
| systems such as Aluminium and Galvanized Iron. The             |  |  |
| installation time is significantly reduced compared to the     |  |  |
| traditional pipes leading to increased productivity and        |  |  |
| further reduction in the overall costs of the piping system.   |  |  |

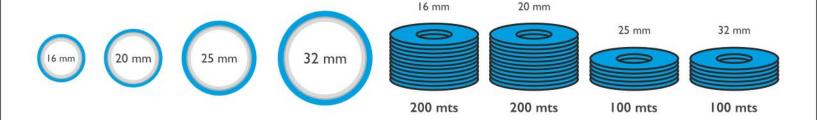
| Size<br>(mm) | Size<br>(Inch) | Coil<br>Lenth | Aluminium<br>Thickness | Working<br>Temperature |
|--------------|----------------|---------------|------------------------|------------------------|
| 1216         | 1/2"           | 200           | 0.21                   | -20°c to - 80°c        |
| 1620         | 3/4"           | 200           | 0.26                   | -40°c to - 100°c       |
| 2025         | 1"             | 100           | 0.30                   | -40°c to - 100°c       |
| 2632         | 11/4"          | 100           | 0.38                   | -40°c to - 100°c       |

# **Pipe Composition**





Prime Pex Air Link Pipes are available in a wide range of sizes from 16 mm O.D. to 32 mm O.D.



# PRIME PEX GASLINK



Prime Pex Gaslink Pipes are an ideal choice for indoor and outdoor installations. The pipes conform to stringent international standards for gas piping systems and multilayer piping technology

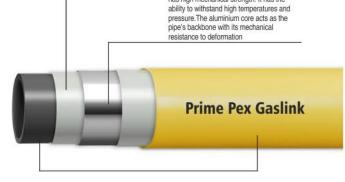
# Gas Geyser Gas Stove Gas Stove

### The adhesive layer perfectly bonds the polyehtylene and aluminium layers and absorbs the eventual shifting movements

absorbs the eventual shirting movements between the layers

ALUMINIUM CORE

The aluminium core stays where it lays and has high mechanical strength. It has the ability to withstand high temperatures and pressure. The aluminium core acts as the



### INTERNAL & EXTERNAL POLYETHYLENE LAYERS

The Polyethylene layers are lightweight, flexible and chemically inert. It Provides a smooth surface for better flow and is a food grade material.





50 Years of working life



Hygienic, Toxic free, Rust free and no growth of micro-organisms



Easily bendable never springs back



Easy installation and wide range of usage



Light in weight, easy to carry and store



Low expansion and contraction



Quite flow



Fire retardant





### **Female Elbow**



| 1014 x ½"    | 1216 x ½"   | 1216 x 3/4"  |
|--------------|-------------|--------------|
| 1620 x ½"    | 1620 x 3/4" | 2025 x ½"    |
| 2025 x 3/4"  | 2025 x 1"   | 2532 x 1"    |
| 2532 x 11/4" | 3240 x 1"   | 3240 x 11/2" |

### Male Elbow



| 1216 x 1/2" |      | 2025 x 1" |        | 1620 x ½" |  |
|-------------|------|-----------|--------|-----------|--|
|             | 1620 | x 3/4     | 2532 : | x 11/4"   |  |

### **Equal Elbow**



| 1014 x 1014 | 1216 x 1216 | 1620 x 1620 |
|-------------|-------------|-------------|
| 2025 x 2025 | 2532 x 2532 | 3240 x 3240 |

### **Equal Tee**



1014 x 1014 x 1014 1216 x 1216 x 1216 1620 x 1620 x 1620 2025 x 2025 x 2025 2532 x 2532 x 2532 3240 x 3240 x 3240

### Female Straight Union



| 1014 x <sup>1</sup> / <sub>2</sub> " | 1216 x ½"    | 1216 x 3/4"  |
|--------------------------------------|--------------|--------------|
| 1216 x 1"                            | 1620 x 1/2"  | 1620 x 3/4"  |
| 1620 x 1"                            | 2025 x 1/2"  | 2025 x 3/4"  |
| 2025 x 1"                            | 2532 x 3/4"  | 2532 x 1"    |
| 2532 x 11/4"                         | 3240 x 11/4" | 3240 x 11/2" |

Male Straight Union



| 1014 x <sup>1</sup> / <sub>2</sub> " | 1216 x ½"    | 1216 x 3/4" |
|--------------------------------------|--------------|-------------|
| 1216 x 1"                            | 1620 x ½"    | 1620 x 3/4" |
| 1620 x 1"                            | 2025 x ½"    | 2025 x 3/4" |
| 2025 x 1"                            | 2532 x 3/4"  | 2532 x 1"   |
| 2532 x 11/4"                         | 2532 x 11/2" | 3240 x 1"   |
|                                      | 3240 x 11/2" |             |

Female Tee



| 1014 x ½" x 1014 | 1216 x ½" x 1216   |
|------------------|--------------------|
| 1620 x ½" x 1620 | 1620 x 3/4" x 1620 |
| 2025 x ½" x 2025 | 2025 x 3/4" x 2025 |
| 2025 x 1" x 2025 | 2532 x ½" x 2532   |
| 2532 x 1" x 2532 | 2532 x 3/4" x 2532 |

**Unequal Tee** 



| 1620 x 1216 x 1216                    | 1620 x 1216 x 1620   |
|---------------------------------------|--|
|                                       | 2025 x 1620 x 1620   |
|                                       | 2025 x 2025 x 1620   |
|                                       | 2532 x 2025 x 2532   |
| THE RESERVE AND ADDRESS OF THE PARTY. | THE RESIDENCE OF THE PARTY OF T |
|                                       | 3240 x 2025 x 3240   |
| 3240 x 1620 x 3240                    | 3240 x 2532 x 3240   |

Male Tee



**Unequal Elbow** 



| 1620 x 1216 | 2025 x 1216 | 2025 x 1620 |
|-------------|-------------|-------------|
| 2532 x 1216 | 2532 x 1620 | 2532 x 2025 |
| 3240 x 1620 | 3240 x 2025 | 3240 x 2532 |

**Unequal Straight Union** 



2025 x 1216 | 2025 x 1620 | 2532 x 1216 | 2532 x 1620 | 2532 x 2025 | 3240 x 1620 | 3240 x 2025 | 3240 x 2532 |

Wall Plated Female Elbow



1014 x ½" 1216 x ½" 1620 x ½"

Cross Tee



1216 x 1216 x 1216 1620 x 1620 x 1620

Male Valve



| 1216 x 1/2" | 1620 x 1/2" |
|-------------|-------------|

**Equal Valve** 



|     | 1014 x 1014 |      | 1216   |        |      |
|-----|-------------|------|--------|--------|------|
| 162 | 0 × 1620    | 2025 | x 2025 | 2532 x | 2532 |

Female Valve



| 1216 x ½" | 1620 x ½" |
|-----------|-----------|
|-----------|-----------|





Male Gas Nozzle Valve



Equal Straight Union

1014 x 1014 1216 x 1216 1620 x 1620 2025 x 2025 2532 x 2532 3240 x 3240

**Bending Inner Spring** 





2532

3240

2025



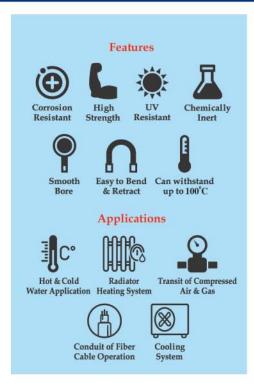
1620 × 2025 × 2532

Reamer



## **INSTALLATION & WARRANTY**





Installing the Prime Pex Multilayer Composite Piping system in transmitting of potable water (hot & cold), pneumatic system and noble gas system is not only very easy but cost effective as well, as it doesn't require any involvement of heavy machines or highly skilled labour. Hence, making the overall cost even much lesser than any other system.

- Cut the pipe at right angle into length with Ratchet pipe cutter.
- 2. Round-en the pipe with the help of reamer.
- 3. Insert the compression nut and split ring into the pipe & install the fittings in the pipe properly.
- 4. Tighten the external compression nut, which will ensure that it remain air tight and doesn't fail at designed pressure.
- 5. Bend the pipe only with the help of bending spring.

Primepex Multilayer Piping system is highly flexible when it comes to the installation. It can be maneuvered easily as per the requirement even after installation hence, saving cost and increasing the productivity of the entire system.











# **Product Warranty**

Prime Pex products are manufactured using the best raw materials, latest processes and as per international product standards.

We provide a 15 years warranty on pipes & fittings against any manufacturing defect subject to the following Terms and Conditions:

- Warranty is applicable only when Prime Pex Multi Layer Composite pipe and Prime Pex Link are used together in combination. Warranty will be void in case of use with pipes or fittings of other brands.
- Prime Pex Installation procedure is followed and Prime Pex Tools are used for installation.
- Prime Pex provides free replacement of faulty products under this warranty and is not liable for any other costs incurred directly or indirectly.
- The warranty does not cover faulty workmanship.



WARRANTY AGAINST
MANUFACTURING DEFECT\*



# Prime----Pex | | | | RAW MATERIAL INFORMATION





### Raw Material - ALUMINIUM

Aluminium is a soft, lightweight, non-toxic and malleable metal with appearance ranging from silvery to dull gray depending on surface roughness. Aluminium alloys have yield strengths ranging from 200mpa to 600mpa. For Prime Pex MLC Pipes, a specialised grade of Aluminium is used which is manufactured specifically for these pipes and have the right balance of strength and flexibility as required for bending applications.

| (mm) |     |      |
|------|-----|------|
| 1014 | 7.0 | 2100 |
| 1216 | 6.0 | 2300 |
| 1620 | 5.0 | 2500 |
| 2025 | 4.0 | 2500 |
| 2532 | 4.0 | 2500 |
| 3240 | 4.0 | 2800 |

THERMAL CONDUCTIVITY: 0.45W/M.K. - ABOUT 1/100 of steel pipe but not only serveral times higher than that of insulating materials. No need of insulation Prime Pex Hot Water Pipes. Prime Pex Pipes have an extremely low co-efficient of linear expansion 25 X 10-6 m/m.k., only 1/8th of all polyethylene pipes, almost same as that of aluminium pipes.

### **Raw Material - POLYETHYLENE**

Polyethylene or PE is a polymer consisting of long chains of the monomer ethylene. It is created through the polymerization of ethene and is classified into different types based on Density. High density polyethylene or HDPE is used to manufacture Prime Pex MLC Pipes. It has a low degree of branching and thus stronger inter-molecular forces and tensile strength. The Polythelene used in Air Connect Pipes is food grade and hence hygenic.





| PIPE DIMENSIONS IN MM                     | 1014      | 1216      | 1620      | 2025      | 2632      |
|---|-----------|-----------|-----------|-----------|-----------|
| Outer diameter, nominal size mm           | 14        | 16        | 20        | 25        | 32        |
| Wall thickness, nominal size in mm        | 2.0       | 2.0       | 2.0       | 2.5       | 3.0       |
| Internal diameter, nominal size in mm     | 10        | 12        | 16        | 20        | 26        |
| Pipe weight in g/m                        | 92        | 110       | 136       | 207       | 309       |
| Internal volume in I/m                    | 0.100     | 0.113     | 0.201     | 0.314     | 0.531     |
| Heat conductivity in W/m K1               | 0.43      | 0.43      | 0.43      | 0.43      | 0.43      |
| Expansion coefficient in mm/m K           | 0.024     | 0.024     | 0.024     | 0.024     | 0.024     |
| Surface roughness [inner pipe] in $\mu$ m | 1.5       | 1.5       | 1.5       | 1.5       | 1.5       |
| Oxygen diffusion in mg/(m2 d)             | 0         | 0         | 0         | 0         | 0         |
| Max. operating temperature in °c          | 80°       | 80°       | 100°      | 100°      | 100°      |
| Bend radium freely bent                   | ≥ 5 x D   | ≥ 5 x D   | ≥ 5 x D   | ≥ 5 x D   | ≥ 5 x D   |
| Bend radium with bending tools            | ≥ 3.5 x D |

Disclaimer: All Information given in this Brochure are reliable, accurate and in good faith, however due to continuos Product Research & Development undertaken by our company actual product may differ from that shown in the Brochure. Product images shown here are for representation purpose.





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