What is PEX?

PEX is cross-linked polyethylene. Through one of several processes, links between polyethylene molecules are formed to create bridges (thus the term "cross-linked). This resulting material is more durable under temperature extremes, chemical attack, and better resists creep deformation, making PEX an excellent material for hot water and other applications.

How long has PEX been used?

PEX was developed in the 1960s. PEX tubing has been in use in many European countries for plumbing, radiant heating and snow melt applications since that time. PEX was introduced in the United States in the 1980s, and has seen significant growth in market demand and production.

What are recommended uses for PEX?

PEX 's flexibility and strength at temperatures ranging from below freezing up to 200 degrees Fahrenheit makes it an ideal piping material for hot and cold water plumbing systems, service lines, hydronic radiant heating systems, snow melting applications, ice rinks and refrigeration warehouses.

Why is PEX an excellent piping material for plumbing?

PEX is ideally suited for potable water plumbing applications. It is flexible, making it easy to install and service. PEX is able to withstand the high and low temperatures found in plumbing and heating applications, and is highly resistant to chemicals found in the plumbing environment.
Flexible systems are quieter than rigid piping. The smooth interior will not corrode which can affect other materials long term pipe flow characteristics. PEX is also very freeze-break resistant. PEX systems have fewer joints and are easier to install providing a lower cost installation over traditional plumbing materials.

How can I be sure that PEX is a safe product for plumbing?

PEX is manufactured and tested according to stringent national consensus standards: ASTM F 876, F 877, AWWA C904 and CSA B137.5. Both the product manufacturer and independent third party testing agencies conduct routine quality control and quality assurance evaluations to insure the product meets ASTM, ANSI/NSF International and CSA Standards. Compliance with the standards ensures the end user of safety and quality. Additionally, PEX is included in all of the major model plumbing codes used in the United States and Canada; NPC, UPC, IPC and NSPC, and approved by HUD for hot and cold potable water plumbing use.

Where is PEX approved for use?

PEX is an approved material in all the current model-plumbing codes; however, some jurisdictions using older versions of these codes may not have amended the code to include PEX tubing. Contact the local authority with jurisdiction over plumbing to verify the acceptance of PEX tubing for plumbing applications in your area.

Can PEX be used under the slab?

Yes. The flexibility of PEX allows it to be supplied in coils meaning installations under the slab can be made in a single, continuous length without the need for fittings. PEX is not affected by concrete, (it is commonly encased in concrete for radiant floor heating). PEX, however, must be sleeved when penetrating a slab.

Can PEX be used for underground cold-water service applications?

Yes. Although the high temperature resistance of PEX makes it particularly suitable for hot and cold interior plumbing applications, it also makes an excellent underground water service piping. The new AWWA C904 standard also applies to PEX used in this application. PEX can be installed using the same fittings recommended for copper tube sized SDR-9 polyethylene tubing.

Can PEX be used for aboveground outdoor applications?

No. PEX is currently designed for indoor and buried applications only and is not recommended for outdoor, aboveground use. Short exposures to sunlight during construction are permissible, but should not exceed the manufacturer’s recommendations. PEX should be stored under cover, shielded from direct sunlight or in the original packaging. In the future, PEX products rated for outdoor use may be developed.