



Listing Number: PMG-1010

Effective Date: May 1, 2008

This listing is subject to re-examination in one year.

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CSI: DIVISION: 15—MECHANICAL  
Section: 15180—Heating and Cooling Piping

Product: Unipipe® PEX-AL-PEX for Use in Hydronic Heating Systems

Listee: Uponor Rohrsysteme GmbH  
Industries 56  
Hassfurt 97437  
Germany  
[http://www.unipipe.de/pr41/UNIPIPE/unipipe\\_en.nsf](http://www.unipipe.de/pr41/UNIPIPE/unipipe_en.nsf)

Additional Listee:

Wirsbo Company  
5925 148<sup>th</sup> Street West  
Apple Valley, Minnesota 55124

Compliance with the following codes:

2003 *International Mechanical Code*® (IMC)  
2003 *International Residential Code*® (IRC)

Compliance with the following standard:

LC1004 - PP, PEX, PEX-AL-PEX, and PP-AL-PP Piping, Tube and Fittings Used in Radiant Heating and Water Supply Systems  
ASTM F 1281-03

Identification:

**Pipe:** The Unipipe® piping covered by this report must be labeled every 3 feet (914 mm) with the manufacturer's name and/or trademark (Uponor Rohrsysteme GmbH or Wirsbo Company), product name (Unipipe® or, for Wirsbo Company, Multicor™), nominal tubing size, material designation (PEX-AL-PEX), temperature and pressure ratings, ASTM F 1281 designation, the name of the third-party inspection agency (NSF International), and either the ICC-ES evaluation report number (ESR-1402) or the ICC-ES PMG listing number (PMG-1010) and/or the ICC-ES PMG listing mark.

**Fittings:** The packages containing Multi-Press (MP) fittings and screwed fittings covered by this listing must be labeled with the Unicor name and the nominal pipe size.

Installation:

Radiant piping must be installed in accordance with the manufacturer's published installation instructions and Chapter 12 of the IMC or Chapter 21 of the IRC, as applicable. The installation is subject to approval by the code official.



Listings are not to be construed as representing aesthetics or any other attributes not specifically addressed, nor are they to be construed as an endorsement of the subject of the listing or a recommendation for its use. There is no warranty by ICC Evaluation Service, Inc., express or implied, as to any finding or other matter in this listing, or as to any product covered by the listing.

Only Uponor's proprietary fittings must be used in the Uponor system. Fittings must be attached to piping in strict accordance with the Uponor Rohrsysteme GmbH installation instructions, which are provided with the product.

Clearances from heat-producing equipment must be in accordance with Section 503.7.7 of the 2003 *International Fuel Gas Code*<sup>®</sup>.

Models: **Pipe:**

Unipipe<sup>®</sup> is available in  $\frac{3}{8}$ - through 1-inch-diameter (9.5 through 25.4 mm) coils or 5-meter straight lengths, with three types of fittings. The pressure rating is in excess of 100 psi at 180°F (690 kPa at 82°C).

**Fittings:**

Uponor supplies two types of proprietary fittings for use with Unipipe<sup>®</sup>. Fittings must be one of these two types:

Multi-Press (MP) fittings utilize a single or double O-ring seal and are joined to the pipe by use of a proprietary installation tool which presses the outer metal sleeve over the piping onto the fitting's inner serrated layer.

Screwed fittings use the tightening torque to make the fitting compress over the piping. The screwed portion of the fitting can then be removed.

Conditions of Listing:

1. Details on the design and installation of the heating system must be submitted to the building official for approval.
2. The tubing must be maintained at the proposed operating pressure during placement of the concrete cover for a hydronic piping system.
3. The tubing installation must be pressure-tested for leaks in the presence of the building official or the official's designated representative.
4. When installation is in fire-resistive assemblies, evidence of compliance with IBC Section 712 or UBC Section 710 must be provided to the building official.
5. The potable water connections must be protected against backflow from the hydronic heating system.
6. The tubing must not be used as a source of electrical ground.
7. The minimum cold bending radius is five times the outside tube diameter.
8. The tubing is limited to hydronic applications using potable water as the transfer fluid.

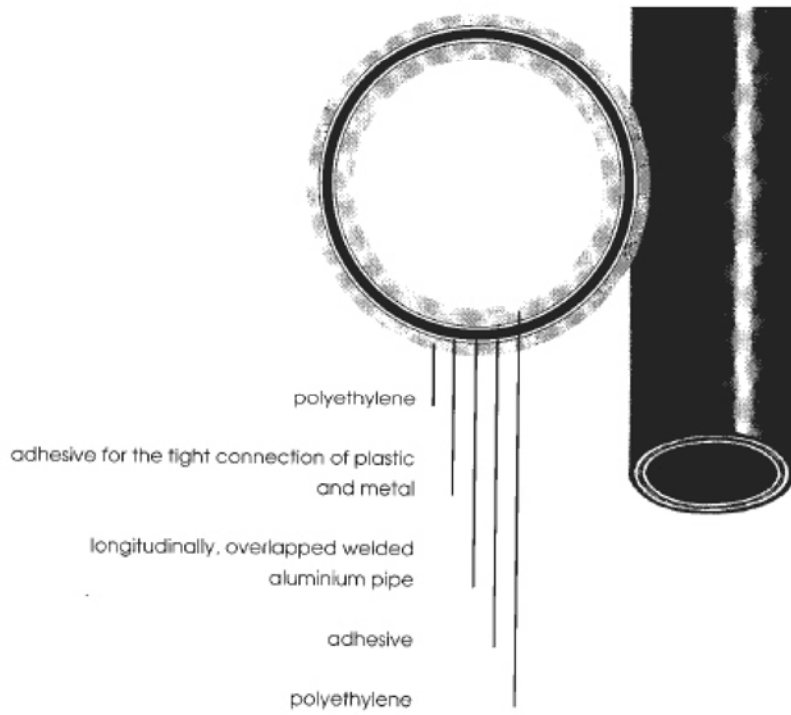


FIGURE 1—SYSTEM COMPONENTS