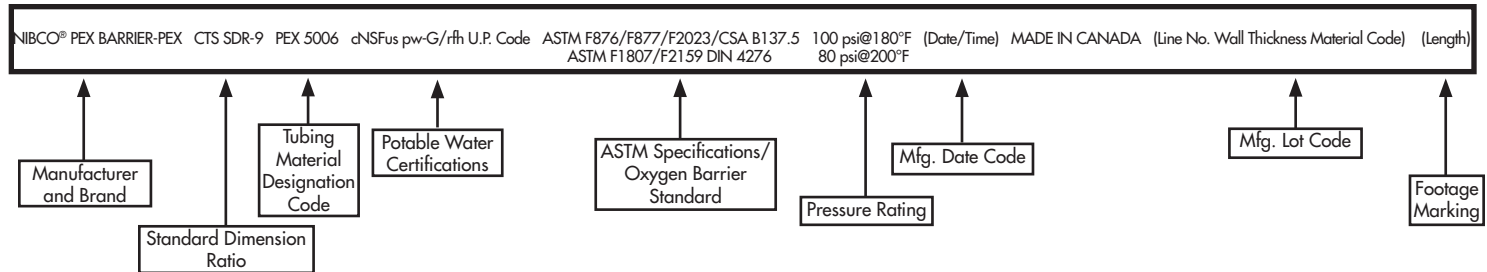


Project Name: \_\_\_\_\_  
 NIBCO Representative: \_\_\_\_\_  
 Unit Tag #: \_\_\_\_\_ Order by: \_\_\_\_\_ Date: \_\_\_\_\_  
 Engineer: \_\_\_\_\_ Submitted by: \_\_\_\_\_ Date: \_\_\_\_\_  
 Contractor: \_\_\_\_\_ Approved by: \_\_\_\_\_ Date: \_\_\_\_\_



### ENGINEERING SPECIFICATION

**Material & Cross Linking:** Tubing shall be made of cross-linked high density polyethylene. The PEX shall be made in copper tube size dimensions (CTS-OD) with a standard dimension ratio (SDR) of 9 controlling the wall thickness. The cross-linking method shall be accomplished by grafting organosilane molecules onto the base polyethylene chain by use of a catalyst blended with the resin before extrusion and then completed in a steam process. The oxygen barrier layer on the outside of the tubing shall be made of ethylene vinyl alcohol (EVOH). EVOH is highly resistant to the passage of oxygen.

**Standards:** Tubing shall meet the following standards:

- ASTM specifications of F 876 (Standard Specification for Crosslinked Polyethylene (PEX) Tubing)
- ATM F 877 (Standard Specification for Crosslinked Polyethylene (PEX) Plastic Hot- and Cold-Water Distribution Systems)
- DIN 4726.070 Oxygen Permeation
- NSF standards 61 and 14 as suitable for use with potable water

**Performance:** Pressure and temperature ratings shall be 80psi @ 200°F, 100psi @ 180°F, and 160psi @ 73°F. Oxygen permeation shall be less than .01grams/m3/day.

### PRODUCT DESCRIPTION

NIBCO INC. BARRIER-PEX is cross-linked polyethylene tubing used to transport fluids in hydronic radiant heating/cooling/snow-melt systems where oxygen permeation into the system is not desired. This is important where ferrous metal components are used. Fluids in a radiant system shall be of a water or water/glycol mix. The tubing shall also be suitable for use in potable plumbing applications. The tubing may be placed in concrete, thin slab, sand, behind walls, and in or under wood flooring. BARRIER-PEX is an orange color to distinguish it from other types of PEX tubing and is available in multiple sizes in both sticks and coils.

### PRODUCT DIMENSIONS

| Size | Figure Number | Description             | NOM. I.D. | O.D.   | Volume gal. per 100' |
|------|---------------|-------------------------|-----------|--------|----------------------|
| 1/2" | NP75          | 1/2" Orange BARRIER-PEX | 0.475"    | 5/8"   | 0.921                |
| 5/8" | NP75          | 5/8" Orange BARRIER-PEX | 0.574"    | 3/4"   | 1.340                |
| 3/4" | NP75          | 3/4" Orange BARRIER-PEX | 0.671"    | 7/8"   | 1.837                |
| 1"   | NP75          | 1" Orange BARRIER-PEX   | 0.862"    | 1 1/8" | 3.025                |

### OPERATING TEMPERATURE AND PRESSURE

The NIBCO INC. BARRIER-PEX tubing has a pressure rating of 80 PSI at 200°F, 100 PSI at 180°F and 160 PSI at 73°F.