

# MrPEX<sup>®</sup> Tubing Properties

## Bending Radii

▶ The minimum acceptable bending radius in accordance with ASTM F 877 is 6 times the tubing outside diameter. Due to the unique flexibility of Mr PEX<sup>®</sup> Tubing, as compared to conventional PEX tubing, we allow a bending radius of 4 times the outside diameter.

The outside diameter is equal to the nominal size plus 1/8". Below table is a comparison of minimum bending radii of PEX in accordance with ASTM and bending radii of Mr PEX<sup>®</sup> Tubing. There is also a listing of the corresponding center distances when exiting the bend. Note that the actual center distances of the tubing in a radiant floor heating layout can be made somewhat narrower by allowing a so called "pear shaped" bend.

| Nominal Size | Actual Size | Bending Radii<br>ASTM F 877 | Bend c/c<br>ASTM F 877 | Bending Radii<br>Mr PEX <sup>®</sup> | Bending c/c<br>Mr PEX <sup>®</sup> |
|--------------|-------------|-----------------------------|------------------------|--------------------------------------|------------------------------------|
| 3/8"         | 1/2"        | 3"                          | 6"                     | 2"                                   | 4"                                 |
| 1/2"         | 5/8"        | 3.75"                       | 7.5"                   | 2.5"                                 | 5"                                 |
| 5/8"         | 3/4"        | 4.5"                        | 9"                     | 3"                                   | 6"                                 |
| 3/4"         | 7/8"        | 5.25"                       | 10.5"                  | 3.5"                                 | 7"                                 |
| 1"           | 1.125"      | 6.75"                       | 13.5"                  | 4.5"                                 | 9"                                 |

*Note that above c/c measures applies to the center line of the tubing.*

## Thermal Conductivity

▶ The thermal conductivity of Mr. PEX<sup>®</sup> Tubing does not measurably differ from that of other PEX tubing. It is 0.22 Btu/(h\*°F).

## Measurements

▶ Mr. PEX<sup>®</sup> Tubing is manufactured in accordance with ASTM F 876. See details of the specification, below. Our control of measurements is second to none. Measurements are supervised by NSF International 4 times per year.

| Nominal Size | Actual Size | Tolerance Allowed | Wall Thickness | Tolerance Allowed |
|--------------|-------------|-------------------|----------------|-------------------|
| 3/8"         | 1/2"        | ± 0.003           | 0.070          | ± 0.010           |
| 1/2"         | 5/8"        | ± 0.004           | 0.070          | ± 0.010           |
| 5/8"         | 3/4"        | ± 0.004           | 0.083          | ± 0.010           |
| 3/4"         | 7/8"        | ± 0.004           | 0.097          | ± 0.010           |
| 1"           | 1.125"      | ± 0.005           | 0.125          | ± 0.013           |

*All measurements are in inches.*

## Ratings

▶ Mr PEX<sup>®</sup> Tubing carries following ratings as issued by Plastic Pipe Institute:

**73°F: 160 psi – 180°F: 100 psi – 200°F: 80 psi**