

## AquaHeat Heat-PERT and PERT Piping 91000 Series **AquaHeat**

|            |  |                |      |
|------------|--|----------------|------|
| JOB        |  | REPRESENTATIVE |      |
| ENGINEER   |  | ORDER #        | DATE |
| CONTRACTOR |  | SUBMITTED BY   | DATE |
| PAGE #     |  | APPROVED BY    | DATE |

| Qty/Length | Part # | Pipe OD | SDR | Comments |
|------------|--------|---------|-----|----------|
|            |        |         | 9   |          |
|            |        |         | 9   |          |

### Heat-PERT and PERT Piping 91000 Series

AquaHeat Heat-PERT pipe is a 5 layer pipe made from Dowlex 2344 resin offering high temperature and pressure resistance without cross linking of the pipe. PERT stands for PolyEthylene Raised Temperature and carries ratings up to 180F at 100psi. It has superior flexibility and can be used in both radiant and snow melt systems. It is manufactured to ASTM F2623 and is approved by NSF and CSA. Oxygen diffusion meets DIN 4726 which limits oxygen permeation through the pipe wall. It is SDR9 sized pipe and can be used with any ASTM F1807 or F2159 fittings.



| Technical Data   | Value              | Unit               | Test Standard |
|--|--------------------|--------------------|---------------|
| Density  | 58.745             | lb/ft <sup>3</sup> | ASTM D-792    |
| Thermal Conductivity at 140°F                              | 2.7734             | BTU (h.ft2f/in)    | DIN 526512-1  |
| Thermal Expansion Coefficient °F (68°F to 158°F)           | 0.0000394          |                    | DIN 5375      |
| Oxygen Diffusion Rate with O <sub>2</sub> Barrier at 100°F | Better than 0.0002 | MG/in 2x24h        | DIN 4726      |
| Oxygen Diffusion Rate with O <sub>2</sub> Barrier at 180°F | Better than 0.0004 | MG/in 2x24h        | DIN 4726      |

| Manufacturing Standards |                 |
|-------------------------|-----------------|
| ASTM                    | F2623           |
| ASTM                    | E-84            |
| CSA                     | B137.5/LM101713 |
| DIN                     | 4726            |
| IAPMO                   | C               |
| ICBO                    | ES ER-5258      |
| NSF                     | 61 / RFH / 14   |

| Description                  | Nominal Size | Average OD | Minimum Wall Thickness | Weight lbs/ft | Capacity Gal/ft | Bend Radius |
|------------------------------|--------------|------------|------------------------|---------------|-----------------|-------------|
| 91312 Heat-Pert Barrier Pipe | 3/8"x300'    | 0.500      | 0.070"                 | 0.05          | 0.0050          | 2.50"       |
| 91112 Heat-Pert Barrier Pipe | 3/8"x1000'   | 0.500      | 0.070"                 | 0.05          | 0.0050          | 2.50"       |
| 91005 Heat-Pert Barrier Pipe | 1/2"x100'    | 0.625      | 0.070"                 | 0.06          | 0.0098          | 3.25"       |
| 91305 Heat-Pert Barrier Pipe | 1/2"x300'    | 0.625      | 0.070"                 | 0.06          | 0.0098          | 3.25"       |
| 91105 Heat-Pert Barrier Pipe | 1/2"x1000'   | 0.625      | 0.070"                 | 0.06          | 0.0098          | 3.25"       |
| 91205 Heat-Pert Barrier Pipe | 1/2"x2000'   | 0.625      | 0.070"                 | 0.06          | 0.0098          | 3.25"       |
| 91319 Heat-Pert Barrier Pipe | 5/8"x300'    | 0.725      | 0.083"                 | 0.08          | 0.0134          | 3.75"       |
| 91519 Heat-Pert Barrier Pipe | 5/8"x500'    | 0.625      | 0.083"                 | 0.08          | 0.0134          | 3.75"       |
| 91119 Heat-Pert Barrier Pipe | 5/8"x1000'   | 0.875      | 0.097"                 | 0.10          | 0.0189          | 4.50"       |
| 91102 Heat-Pert Barrier Pipe | 3/4"x100'    | 0.875      | 0.097"                 | 0.10          | 0.0189          | 4.50"       |
| 91322 Heat-Pert Barrier Pipe | 3/4"x300'    | 0.875      | 0.097"                 | 0.10          | 0.0189          | 4.50"       |
| 91122 Heat-Pert Barrier Pipe | 3/4"x1000'   | 0.875      | 0.097"                 | 0.10          | 0.0189          | 4.50"       |