

# Engineering Specification

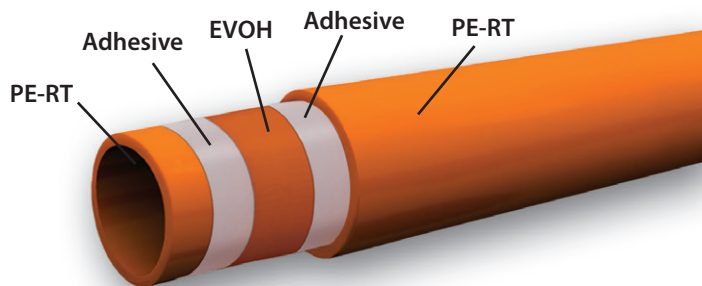
Job Name \_\_\_\_\_  
 Job Location \_\_\_\_\_  
 Engineer \_\_\_\_\_  
 Approval \_\_\_\_\_

Contractor \_\_\_\_\_  
 Approval \_\_\_\_\_  
 Contractor's P.O. No. \_\_\_\_\_  
 Representative \_\_\_\_\_

## RadiantPERT™ Tubing

**Sizes:** 3/8" (9.5 mm)      1/2" (12.7 mm)  
 5/8" (15.9 mm)      3/4" (19.1 mm)  
 1" (25.4 mm)

Watts RadiantPERT is a 5-layer PE-RT (polyethylene raised temperature) tubing used for radiant heating, cooling, snowmelting, and distribution piping. RadiantPERT is manufactured with an integral ethylene vinyl alcohol (EVOH) DIN Standard O2 barrier that limits oxygen diffusion through the walls of the tubing to less than 0.10g/m3/day at 104°F (40°C) water temperature. RadiantPERT offers a protective PE-RT layer over the EVOH oxygen barrier.



Operating Temperature & Pressure	
Max. Temperature	Max. Pressure
180°F (82.2°C)	80 psi (5.5 bar)
73.4°F (22.7°C)	160 psi (11.0 bar)

### Specifications

System shall be installed using Watts RadiantPERT tubing. All connections shall be made using Watts CinchClamp, CrimpRing, Compression, or corresponding size and in accordance with all corresponding installation guidelines.

### Features

RadiantPERT offers improved cold-weather flexibility with reduced recoil affect. A wide range of sizes and coil lengths offer greater application coverage and improved installation performance.

### Codes Listings and Standards

- Certified to ASTM F2623 for Polyethylene of Raised Temperature (PE-RT) SDR 9 Tubing by NSF and CSA
- Rated at 73°F @ 160psi and 180°F @ 80psi
- Tested and listed to Standard NSF-14(rfh)
- Certified to the Uniform Mechanical Code by NSF
- Compatible with fittings manufactured and certified to ASTM Standard F1807, F2159, and F1960.

#### Standards



#### Listings



RadiantPERT Tubing Specifications							
Qty	Model #	Description in. (mm)	Nominal I.D. in. (mm)	Nominal O.D. in. (mm)	Stick and Coil Lengths ft. (m)	Min. Bend Radius in. (mm)	Fluid Capacity (Gal/100')
	PTO32061	3/8 (9.5) RadiantPERT	0.35 (8.9)	.5 (12.7)	600 (182.9)	2.5 (63.5)	0.53 (2.4 l)
	PTO32081	1/2 (12.7) RadiantPERT	0.475 (12.1)	.625 (15.9)	300 (91.4) / 1000 (304.8)	3.125 (79.37)	0.96 (4.4 l)
	PTO32101	5/8 (15.9) RadiantPERT	0.574 (14.6)	.750 (19.0)	20 (6.1) / 100 (30.5) / 300 (91.4) 500 (152.4) / 1200 (362.8)	3.75 (95.25)	1.39 (6.3 l)
	PTO32121	3/4 (19.1) RadiantPERT	0.671 (17.0)	.875 (22.2)	20 (6.1) / 100 (30.5) / 300 (91.4) 500 (152.4) / 1000 (305.0) / 1200 (362.8)	4.375 (111.12)	1.89 (8.6 l)
	PTO32161	1 (25.4) RadiantPERT	0.863 (21.9)	1.125 (28.6)	20 (6.1) / 300 (91.4)	5.625 (142.87)	3.12 (14.2 l)

### NOTICE

The information contained herein is not intended to replace the full product installation and safety information available or the experience of a trained product installer. You are required to thoroughly read all installation instructions and product safety information before beginning the installation of this product.



Watts product specifications in U.S. customary units and metric are approximate and are provided for reference only. For precise measurements, please contact Watts Technical Service. Watts reserves the right to change or modify product design, construction, specifications, or materials without prior notice and without incurring any obligation to make such changes and modifications on Watts products previously or subsequently sold.



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