



Application Design Note

HWAT on Rigid Plastic Pipes

The Raychem® HWAT® hot water maintenance system incorporates HWAT-Y2 and HWAT-R2 heating cables, and the HWAT-ECO electronic controller. The HWAT-ECO adjusts the power output of the HWAT heating cables to maintain the correct pipe temperatures on copper pipes. Due to the increasing cost of copper, plastic pipes are becoming more common. To maintain the desired temperature on rigid plastic pipes while compensating for the poor heat transfer of plastic, use the following guidelines:

1. Install the HWAT heating cables with aluminum tape, as shown in Figure 1.

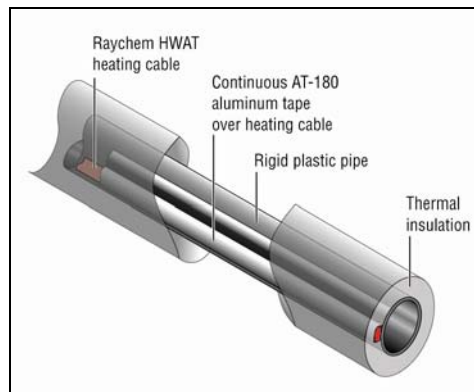


Figure 1: HWAT heating cable installed with aluminum tape

2. Adjust the HWAT-ECO power correction factor, as shown in Table 1.

Heating Cable	Power Correction Factor
HWAT-R2	1.25
HWAT-Y2	1.20

Table 1: Rigid plastic pipe power correction factors

With these simple modifications, the HWAT system will maintain the same uniform hot water temperature on rigid plastics pipes as it does on copper pipes.

Note: Install in accordance with the HWAT Installation and Operation Manual (H57548) and HWAT-ECO Installation and Operation Manual (H57340)

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