



aquatherm

state of the pipe

Aquatherm Recommendations for Mixed Systems

Please refer to: 201207C – AQTTB - Integration of other systems or components with Aquatherm piping for pressure pipe applications

- Do not mix Aquatherm pipe with other piping systems in conditions that will cause the other system or components to fail.
- The domestic Hot Water Recirculating System includes all portions of the DHW system where the water is being circulated, including supply and return piping and any components other than end-of-line fixtures.
- When there is copper piping used in conjunction with PP-R in a DHWR system, care should be taken to ensure the operating conditions will not cause degradation or erosion/corrosion of the copper.
- Do not exceed 140°F (60°C) in the mixed DHWR System.
- Flow rates in a mixed copper/Aquatherm DHWR system should not exceed 0.5 m/s (1.5 ft/sec) anywhere in the system, except in some special cases where velocities up to 1 m/s (3 ft/sec) are needed to achieve proper flow temperature.
- Ensure all possible copper is replaced. If some copper remains as part of the system, strictly follow the rules and guidelines of the Copper Development Association (CDA Publication A4015-14/16: The Copper Tube Handbook) regarding flow rates and water conditions.
- Small amounts of copper or brass in valves and other equipment will generally not cause an issue.
- When adding PP-R to an existing copper system in a DHWR-application, the level of copper in the water should be tested. These levels should not exceed 0.1 mg/L (ppm). Higher levels of total copper indicate that the copper pipe is corroding /eroding due to system and/or water conditions. (PP-R warranty will be void if piping is installed in systems with high copper levels.)
- Hydraulically balance a DHWR-system and ensure the required flow rate for each area of the building
- Avoid water hammer and excessive surge pressures from valves and pumps
- Do not add chlorine or other disinfectants to the DHWR system.
- Provide air release/elimination valves to reduce entrapped and dissolved air in the system
- Do not add additional chlorine, chloramine, chlorine dioxide, on-site copper ion generation or other disinfectants to the DHWR system without first consulting with Aquatherm's Engineering Department in Lindon Utah at (801)642-4145.