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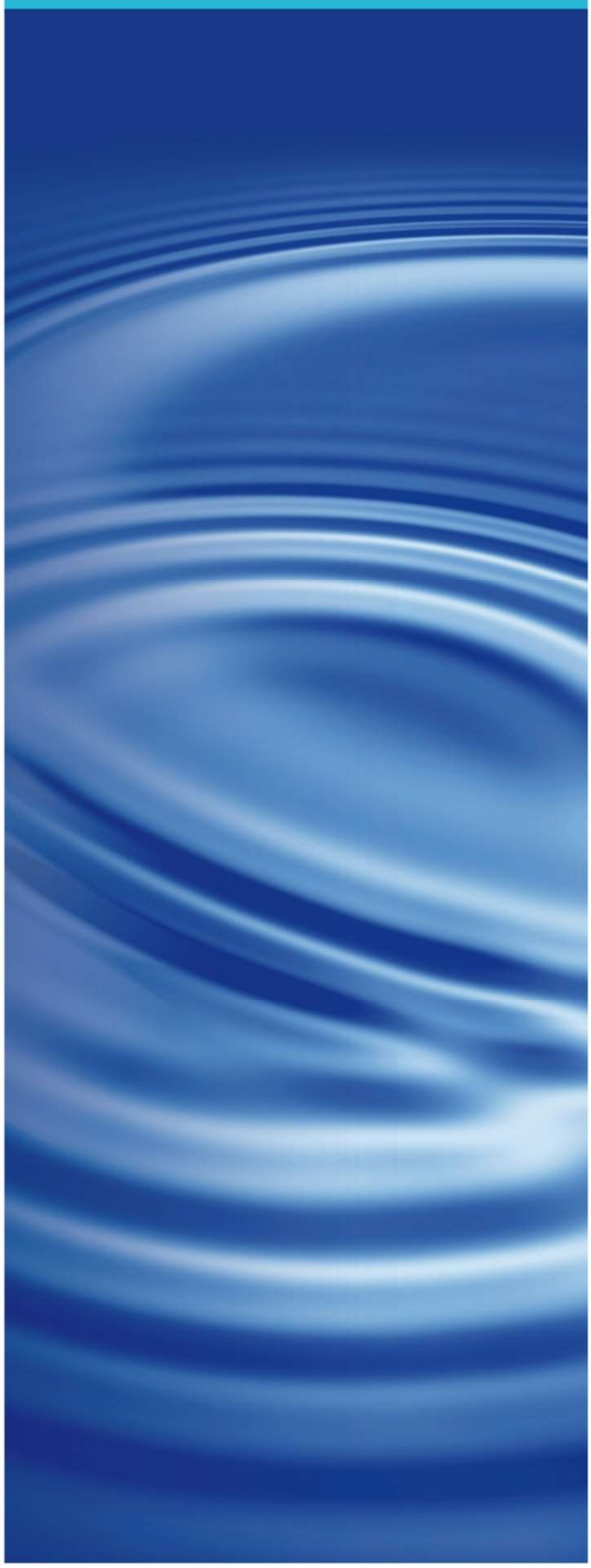

Chlorine Dioxide – Pipework Compatibility

Guidance on suitable pipework materials to be used in conjunction with Chlorine Dioxide

Technical Memorandum TM 106

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total water solutions

Chlorine dioxide is an oxidising biocide/disinfectant that when used correctly, has been shown to be effective at controlling both legionella and biofilm growth in hot and cold-water systems. National conditions of use require that the combined concentration of chlorine dioxide, chlorite and chlorate do not exceed 0.5 mg/l as chlorine dioxide.

Excessive levels of chlorine dioxide should be avoided since they can encourage the corrosion of copper and steel pipework and high levels of chlorine dioxide can degrade certain types of polyethylene pipework particularly at elevated temperatures.

Prospective users of chlorine dioxide dosing systems will need to consider these issues when selecting the materials for the construction of pipework distribution systems and these points should be checked to ensure that the supplier addresses them satisfactorily.

Goodwater acknowledges that there are ongoing issues with the compatibility of polyolefin pipework systems with chlorine dioxide but that the following pipework materials are commonly accepted to be compatible for use with hot and cold-water distribution systems where Chlorine Dioxide is used at concentrations not greater than 0.5 mg/l as chlorine dioxide.

- Copper
- Stainless Steel
- c-PVC based plastic pipework, such as Durapipe HTA

It is the responsibility of others (system designers and installers) to confirm the compatibility of all pipework materials with individual pipework manufacturer/suppliers to ensure that their warranties remain valid.

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