

## Lead Removal

There are three media to consider for removal of lead from potable water:

The first and most obvious product is ResinTech CG8, a standard softening resin. In the sodium form, this resin will have a high capacity for all divalent ions including calcium of about four pounds per cubic foot. Unfortunately, the calcium usually is the major ion present in the water source to be treated and so the capacity of the bed in terms of lead removal is limited to a range less than one pound per cubic foot. There is not a great selectivity advantage using this resin for lead removal, especially in the presence of calcium, and the total water treated would amount to hundreds of bed volumes.

ResinTech WACG or WACMP, weak acid cation resin in the sodium form, will have a good selectivity for lead even in the presence of calcium. The weak acid cation resin in the sodium form will have a softening effect on the water in the beginning of the run. The weak acid cation resins can be kinetically impaired during high flow rates and so may not be entirely suitable for cartridge applications. There are also concerns for taste and odor, more so in weak acid cation resins than in strong acid cation resins.

ResinTech SIR-900 an activated alumina base product, has a good selectivity for lead in the presence of other ions with an ultimate capacity of 0.4 lbs/cu.ft. This translates to a capacity of thousands of bed volumes of water before exhaustion.

