



# Home Water Plant

## HOME WATER PLANT + (SILICA TREATMENT)

### SPECIFICATIONS

### SCIENCE AND TECHNOLOGY

85% of the United States has hard water, i.e., containing calcium and magnesium of 7 gpg (grains per gallon) or more. That statistic underlies the *Home Water Plant* Phase 3 scale treatment and prevention design. Calcium and magnesium, or carbonate, scaling seems an ever-present problem, and the *Home Water Plant* is designed to treat the most common problems faced by homeowners supplied through city water plants.

A considerable number of localities face another scaling problem, silica or its relatives. Silica ( $\text{SiO}_2$  or silicon dioxide) is a combination of silicone and oxygen, the two most abundant elements on earth. As is the case with calcium and magnesium, almost any water from a city water plant will contain at least a slight amount of silica. When the silica level reaches 12, perhaps 14-15 ppm (parts per million), it becomes a serious problem: pipes and appliance heating elements, dishes, silver and glassware scale. The *Home Water Plant + (Silica Treatment)* system prevents scaling from silica and its anion relatives: silicates, sulfates, phosphates, fluoride, chloride, bromide, carbonate and hydrate.

Anions are negatively charged ions: atoms with more electrons than protons. The second tank media in the *Home Water Plant + (Silica Treatment)* includes ceramic hydroxyapatite, which behaves as a cationic, positively charged surface to capture anions such as sulfates, silicates and phosphates.

### REGENERATION

The *silica +* media is easily regenerated to 99% of its original effectiveness by annually depositing a packet of desorption media into an aperture on the tank valve. Harmless effluent is run, say, from a hose bib or bathtub faucet for 15 or 20 minutes. If desorption is performed by a *Home Water Plant* dealer as part of annual maintenance, the *silica +* media is warranted for 10 years.



## TECHNICAL SPECIFICATIONS

### *Tank*

Dimensions — 9" x 48"

Effective Flow Rate (gpm) — 8

Max/Min pressure — 100 psi/30 psi  
pH level — 6.0-9.5

plumbing inlet/outlet size — 1"

### *Media*

Appearance — white/opaque solid granules

Odor — odorless new pH (10 g/l)

Relative Density — 700-800 g/cm<sup>3</sup>

Solubility — non-soluble

Decomposition Temperature —  $\geq 212^{\circ}$  F