

FILTER MEDIA

MULTIMEDIA

FINE SAND has been a standard since the beginning of modern water filtration. Water King filter sand is washed and graded to an effective size of 0.55 mm with a Uniformity Coefficient of 1.5 or less.

MULTIMEDIA filters consist of progressively finer layers of anthracite, filter sand (0.55 mm), and fine garnet sand. When the filter is backwashed, the bed is graded with the coarse anthracite on top, the fine sand in the middle, and the even finer, and more dense, garnet sand in the lowest level. This provides better filtration since the coarse media is first and the lower layers of the media are finer. A multimedia filter provides depth filtration. (See picture to the right.)

ACTIVATED CARBON is a highly porous organic adsorber. It removes many organics from water, particularly those causing taste and odor. It also catalyzes the breakdown of chlorine to chlorides eliminating chlorine from water. Activated carbon removes many of the carcinogenic trace organics such as pesticides and organic solvents. Since activated carbon acts as an adsorber and its adsorption capacity can be exhausted, spent activated carbon must be periodically removed and replaced with fresh adsorbent. The activated carbon has an effective size of 0.70 mm with a Uniformity Coefficient of 1.6.

FILTER AG is a silicate media, which has a lower specific gravity (than sand) and fluidizes at a lower backwash rate. Filter AG requires approximately 30% less backwash flow than sand and 40% less than multimedia. Filter AG has an effective size of 0.56 mm with a Uniformity Coefficient of 1.66.

MANGANESE GREENSAND is a surface-active mineral, which reacts with iron, manganese, and hydrogen sulfide contained in water. The greensand serves as an oxidizer and a filter. The National Sanitation Foundation (NSF) has accepted WATER KING Manganese Greensand under their process media Standard 61. Greensand has an effective size of 0.30 to 0.35 mm with a Uniformity Coefficient of 1.6.

STABILIZATION MEDIA is a mixture of calcium carbonate and manganic oxide in granular form. They effectively raise the pH of water that is not in equilibrium with respect to precipitation of CaCO_3 . Water treated by this media is "stable" having a positive Langlier index. Stabilization media is not designed to serve as a filter but is applied in filtration vessels so the bed can be backwashed to avoid compaction.

UNDERBEDDING is included in all filters and is used to properly distribute the backwash flow. The media is supported by a bed of $\frac{1}{4}$ " x $\frac{1}{8}$ " washed gravel. The gravel is tightly graded and of highest quality to prevent deterioration.



