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Filter-Ag Plus® is a clinoptilolite natural media with a large surface area and microporous structure, which can be used as a highly efficient filter media for the reduction of suspended matter.

Filter-Ag Plus®

Clack Filter-Ag Plus® is a unique natural ore called clinoptilolite that has many outstanding advantages over common granular filter sands and multimedia used for suspended solids reduction. Viewed under an electron scanning microscope, the granules reveal an angular shape, rough surface and microporous void spaces as small as 3 microns. This creates a surface area over 100 times greater than silica sand. The angularity of the granules and the tapered internal pore spaces allow for reduction of dirt, silt and organic matter suspended in water by bridging, straining and adhesion. The rough surface and internal porosity provide a high surface area for efficient reduction of suspended matter. Utilizing deep bed filtration can typically reduce suspended solids down to the 5 micron or less range. Filter-Ag Plus®' structure typically creates less pressure loss through the filter and allows deeper sediment penetration into the bed for higher sediment loading and longer filter runs. The deep bed filtration capacity of Filter-Ag Plus® prevents a rapid buildup of head loss and blinding problems that are associated with typical sand filters. The longer filter run times reduce backwash frequency, which provides conservation of water. This ideal combination of particle shape, texture and porosity make it a good choice where quality water filtration and water conservation are important.

Substantial savings can be realized when designing a system using Clack Filter-Ag Plus®. Its low pressure drop, high service flow rates and high bed loadings combined with lower backwash frequency allow economy in equipment downsizing and reduced pumping requirements. Its low density also saves on handling expense and shipping costs.

Clack Filter-Ag Plus® can be applied to systems

ADVANTAGES

- Deep bed filtration results in superior water quality and reduces the load on downstream equipment.
- High sediment removal capacity results in longer filter runs, with a substantial savings in backwash water and time out of service.
- High service flow rates result in lower equipment costs and a savings in space.
- Reduced shipping cost due to lighter weight/cu.ft.
- Replacement of multimedia with Filter-Ag Plus in existing installations may increase filter capacity.
- Filter-Ag Plus is an all-natural, environmentally safe product.

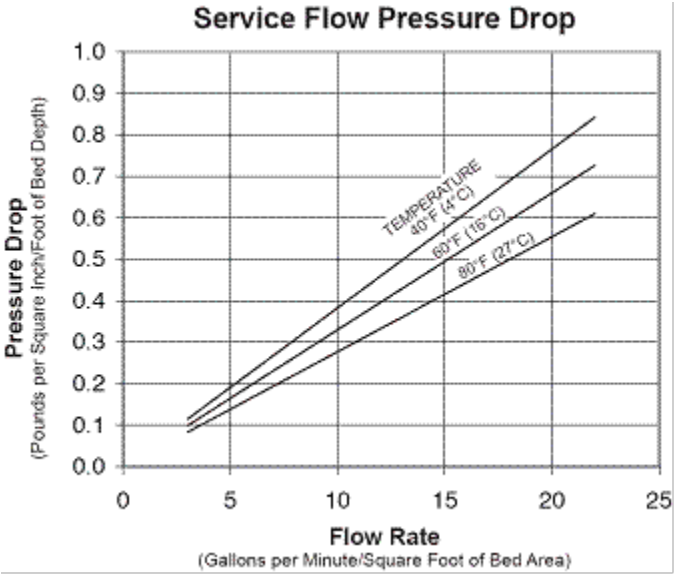
PHYSICAL PROPERTIES

- Color: Light tan to near white
- Bulk Density: 50 lbs./cu. ft.
- Specific Gravity: 2.2 g/cc
- Mesh Size: 14 x 30
- Effective Size: 0.55 mm
- Uniformity Coefficient: 1.8
- Hardness: 4-5 (Mohs scale)

CONDITIONS FOR OPERATION

- Water pH range: wide range
- Maximum water temperature: 140°F/60°C
- Bed depth: 24-36 in.
- Freeboard: 50% of bed depth (min.)
- Service flow rate: 12-20 gpm/sq.ft.

designed for either pressure or gravity flow. Because of its unique physical characteristics, Filter-Ag Plus® can be used to replace multimedia (graded density) filter designs.

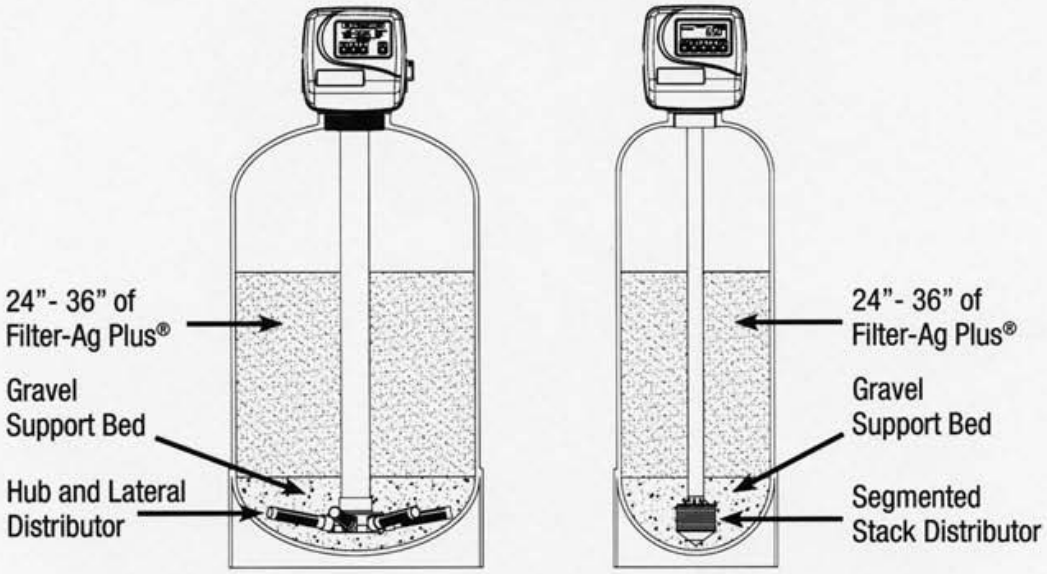


- Backwash flow rate: 15-20 gpm/sq.ft.
- Backwash bed expansion: 30-40% of bed depth
- Local conditions may require lower flow rates
- A gravel support bed is required
- Allow bed to saturate before initial backwash

Filter-Ag Plus®

ENHANCED PERFORMANCE FILTRATION MEDIA

Installation Recommendations



Before putting Filter-Ag Plus® filter into service follow these recommended instructions or contact the original equipment supplier

Slowly fill tank with filter valve in the backwash position until water flows to drain.

Backwash at 15 to 20 gpm/sq.ft. for 5 minutes.

Let material settle for 5 minutes.

Repeat backwash and settle steps for a total of 3 times.

Put the filter to service.

Important Note: For best results allow Filter-Ag Plus® to sit submerged in water for a minimum of 12 hours prior to following the above procedure and prior to putting the filter to service. A gravel support bed is required.