Turbidex™
HYPER-FILTRATION MEDIA

MERINSA
TU ASESOR EN TRATAMIENTO DE AGUA

"For sediment filtration that makes the grade."

Hyper Filtration Media
Turbidex's enhanced ability to remove sediment results in superior water clarity and down stream cost savings on chemicals, filter cartridges, membrane cleaning, membrane life, etc.

Higher Flow Rates
Because of it's high porosity and hydrophylic nature, Turbidex can typically operate at higher service flow rates than multimedia or conventional sand filters.

Water Savings
Customers that switch to Turbidex report that the pressure drops across the system decrease substantially. This results in longer service runs and less frequency between backwashes.

Easier to Inventory and Install
Turbidex is less expensive to ship because it only weighs 50 lbs. per cubic foot.
With one part number and one media it is much simpler to order, inventory and install.

Turbidex™ 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. Turbidex's 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 Turbidex 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 Turbidex. 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.

Turbidex can be applied to systems designed for either pressure or gravity flow. Because of its unique physical characteristics, Turbidex can be used to replace multimedia (graded density) filter designs.

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 Turbidex in existing installations may **increase filter capacity.**
- Turbidex is an all-natural, environmentally safe product.

PHYSICAL PROPERTIES

- Color: Light tan to near white
- Dry Bulk Density: 50 lbs/cu.ft
- **Specific Gravity: 2.2 g/cc**
- Mesh Size: 14x30
- Effective Size: 0.55mm
- **Uniformity Coefficient: 1.8**
- Hardness: 4-5 (Mohs Scale)

CONDITIONS FOR OPERATION

- Water pH: Wide range
- Max. Water Temp.: 140˚F/60˚C
- Bed Depth: 24-36 inches
- Freeboard: 50% of bed depth
- Backwash Flow Rate: 15-20 gpm/sq.ft.
- Backwash Bed Expansion: 30-40% of bed depth
- Service Flow Rate: 12-20 gpm/sq.ft.
- Local conditions may require lower **flow rates**
- A gravel support bed is required
- Allow bed to saturate before initial backwash