



Turbidity Removal PRODUCT DATA SHEET

Type: Natural Zeolite Mineral Ore

Crystal Quest® Eaglesorb™ Turbidity Media is a natural zeolite mineral ore. Natural zeolite mineral ore has many outstanding advantages over the more common granular filter medias used for suspended solids reduction. Its fractured edges and irregular surface provides a high surface area and complex flow path for efficient removal of suspended matter throughout the filter bed, typically reducing suspended solids down to the 5 micron range. This large irregular shape prevents the screening and caking of sediment in the top several inches of the filter bed as happens in the typical sand filter, thus preventing a rapid build-up of head loss and blinding problems. Natural zeolite mineral ore's light weight means lower backwash rates and better bed expansion to release trapped sediment and rinse the filter media during the backwash cycle. This ideal combination of particle shape, size and density makes it a good choice where quality water filtration and water conservation are important.

Eaglesorb™ Turbidity zeolite media comes from a unique mineral deposit in the western United States. It has high hardness, porosity, and surface area (28m²/gm) and surface, micro-mineral qualities that make it ideal as a water filtration media. The mesh 14 x 40 filter media is attrition resistant and has a dry bulk weight of 55 lb./ft². This unique mineral is NSF Standard 61 Listed and is classified under 21CFR Part 182.2729 and 40 CFR Part 180 as GRAS (Generally Recognized as Safe).

This zeolite media has many advantages over other medias. It is cost-effective, requires less backwash, and has a lower DP for a given flow rate (gpm/ft²). When compared with sand/anthracite, fine sand, and multimedia, it provides superior filtration performance at high flux rates (see chart below).

Eaglesorb™ Turbidity Operating Requirements:

FILTER MEDIA	SERVICE FLOW RATES	SOLIDS LOADING	NOMINAL FILTRATION RATING	BACKWASH WATER/CYCLE
Zeolite Standard Design	12-20 gpm/ft ²	High	<5μ	0.70-.75X

FILTER BED FLUX RATE	SERVICE FLOW RATE (GPM)						
	12 gpm/ft ²	9	21	38	59	85	150
15 gpm/ft ²	12	27	47	74	106	189	425
18 gpm/ft ²	14	32	56	89	127	227	509
20 gpm/ft ²	16	35	63	98	141	251	565
Tank Diameter	12"	18"	24"	30"	36"	48"	72"

* The standard media bed depth is 3 ft. reducing height proportionally reduces the solids loading capacity and increases the backwash frequency.

