

Manganese Greensand is capable of reducing iron, manganese and hydrogen sulfide from water through oxidation and filtration.

Manganese Greensand

ADVANTAGES

- Iron reduction over wide pH range
- Effective reduction of hydrogen sulfide in addition to iron and/or manganese
- No harmful effects from a chlorine feed
- Low attrition for long bed life

PHYSICAL PROPERTIES

- Color: Black
- Bulk Density: 85 lbs./cu. ft.
- Specific Gravity: 2.4-2.9
- Effective Size: 0.30-0.35 mm
- Uniform Coefficient: 1.6
- Mesh Size: 16-60
- Attrition Loss Per Year: 2%

CONDITIONS FOR OPERATION

- Water pH range: 6.2-8.5
- Maximum water temperature: 80°F/26.7°C
- Bed depth: 30 in.
- Freeboard: 50% of bed depth (min.)
- Regeneration: 1.5-2 oz of KMnO_4 by weight per cu. ft.
- Service flow rate: 3-5 gpm/sq. ft., 8-10 gpm/sq. ft. intermittent flow possible
- Backwash flow rate: 10-12 gpm/sq. ft.
- Backwash bed expansion: 40% of bed depth (min.)
- Maximum practical limit of iron (Fe^{++}) or manganese (Mn^{++}) in raw water: 15 ppm
- Maximum practical limit of hydrogen sulfide (H_2S): 5 ppm

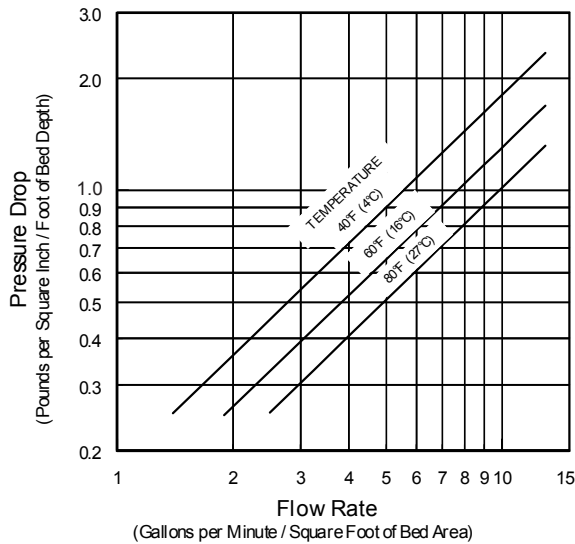
CAPACITY PER CU. FT.

- Iron alone
600 grains (10,000 gal. of water containing 1 ppm iron/cu. ft.)
- Iron and manganese
400 grains (7,000 gal. of water containing ½ ppm iron and ½ ppm manganese/cu. ft.)
- Hydrogen sulfide
175 grains (3,000 gal. of water containing 1 ppm hydrogen sulfide/cu. ft.)

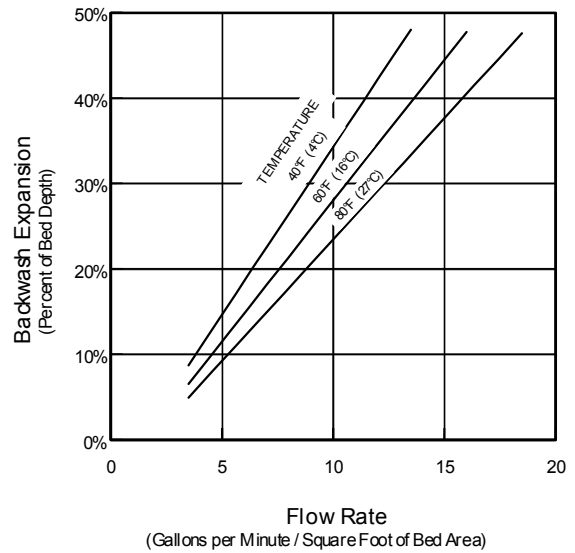
Manganese Greensand is formulated from a glauconite greensand which is capable of reducing iron, manganese and hydrogen sulfide from water through oxidation and filtration. Soluble iron and manganese are oxidized and precipitated by contact with higher oxides of manganese on the greensand granules. The hydrogen sulfide is reduced by oxidation to an insoluble sulfur precipitate. Precipitates are then filtered and removed by backwashing. When the oxidizing capacity power of the Manganese Greensand bed is exhausted, the bed has to be regenerated with a weak potassium permanganate (KMnO_4) solution thus restoring the oxidizing capacity of the bed. 1½ to 2 ounces of potassium permanganate, in solution, per cubic foot of Manganese Greensand is considered sufficient for normal regeneration. It is required to vigorously backwash and regenerate the bed when it is placed in service and before its oxidation capacity is totally exhausted. Operating the bed after oxidation capacity is exhausted will reduce its service life and may cause staining.



Service Flow Pressure Drop



Backwash Bed Expansion



Certified to ANSI/NSF Standard 61

Manganese Greensand
is manufactured by Inversand Co.

ORDER INFORMATION

Part No.	Description	Cu. Ft./Bag	Wt./Cu. Ft.*	Bags/Pallet	Weight/Pallet	Pallet Dimensions
A8041	Manganese Greensand	1	85 lbs.	25	2175 lbs.	48" x 40" x 27"

*Weight per cubic foot is approximate.

Distributed By:

Applied Membranes, Inc.
2325 Cousteau Ct., Vista, CA 92083
Phone: (760) 727-3711 · FAX (760) 727-4427
Sales@AppliedMembranes.com
www.AppliedMembranes.com

Form No. 2349
Replaces Form 1564
Updated 3/01

The information and recommendations in this publication are based on data we believe to be reliable. They are offered in good faith, but do not imply any warranty or performance guarantee, as conditions and methods of use of our products are beyond our control. As such, AMI makes no express or implied warranties of any kind with respect to this product, including but not limited to any implied warranty of merchantability or fitness for a particular purpose. We recommend that the user determine whether the products and the information given are appropriate, and the suitability and performance of our products are appropriate, by testing with its own equipment. Specifications are subject to change without notice.

The information and recommendations given in this publication should not be understood as recommending the use of our products in violation of any patent or as a license to use any patents of the Clack Corporation.

The filter medias listed in this brochure do not remove or kill bacteria. Do not use with water that is microbiologically unsafe or of unknown quality without adequate disinfection before or after the system.

AMI will not be liable under any circumstance for consequential or incidental damages, including but not limited to, lost profits resulting from the use of our products.