



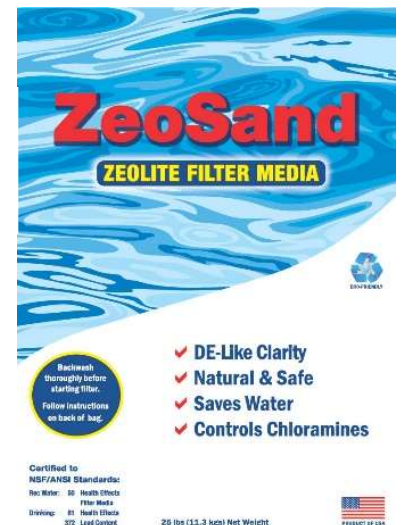
ZeoSand®

Use • Installation Troubleshooting

Zeolite Filter Media

Nature Refined

Science Proven



Purpose

This manual provides validated procedures for the correct use, installation, and maintenance of ZeoSand® Natural Zeolite Filter Media. When properly applied, ZeoSand increases filtration efficiency, extends filter life, and produces visibly clearer water with fewer backwashes than standard silica sand.



Product Overview

ZeoSand's high surface area and ion-exchange capacity remove fine debris and dissolved contaminants that ordinary sand cannot. A cubic foot of ZeoSand weighs ~55 lb, compared with ~100 lb for silica sand, reducing hydraulic load while maintaining full filter-bed depth.

ZeoSand has been used successfully for more than 20 years with and without pea gravel. Follow your filter manufacturer's recommendations; field performance strongly supports using a pea-gravel support layer to stabilize laterals and optimize flow.

Technical Properties

- Mineral: Natural clinoptilolite zeolite
- BET Surface Area: ~25 m²/g
- Cation Exchange Capacity (CEC): ~1.5–2.0 meq/g
- Bulk Density: ~55 lb/ft³
- Particle Removal: Filters particles as fine as 3–5 microns

ZeoSand's microporous framework captures ammonium and heavy metals through ion exchange, improving water purity and reducing dissolved contaminant load. Effective particle removal in the 3–5 micron range under typical operating conditions

NSF/ANSI Certification & Regulatory Status

ZeoSand Natural Zeolite Filter Media has been independently evaluated for compliance with recognized NSF/ANSI standards for water treatment applications. ZeoSand is certified by IAPMO R&T to the following standards:

NSF/ANSI 61 – Drinking Water System Components (Health Effects)

Certified for use as a process media in potable water systems. This standard verifies that ZeoSand does not leach harmful contaminants above established limits when used as intended.

NSF/ANSI 372 – Lead Content (Lead-Free Compliance)

Certified to meet lead-free requirements for materials in contact with drinking water.





NSF/ANSI 50 - Equipment for Swimming Pools, Spas, and Recreational Water
ZeoSand has been tested and demonstrated to meet the performance requirements of this standard for filtration media. However, it is not currently listed under NSF/ANSI 50.

Certification to NSF/ANSI 61 and 372 confirms that ZeoSand is suitable for use in potable water applications when properly installed and operated. Demonstrated performance to NSF/ANSI 50 supports its effectiveness in pool, spa, and recreational water filtration systems.

Use Rate

Replace sand by weight using the ratios below. ZeoSand's lower bulk density provides equivalent bed depth and improved hydraulic performance at half the weight of silica sand. Compatible with standard residential and commercial sand filters used in pool, spa, and water-feature applications. This product is an inert mineral filter media and contains no added chemicals.

- Filters under 500 lb: Use 1 lb ZeoSand per 2 lb sand.
- Filters over 500 lb: Use 60 lb ZeoSand per 100 lb sand.

ZeoSand Use Rate vs Sand

Sand (Pounds)	ZeoSand	
	(Pounds)	(Bags)
50	25	1
100	50	2
200	100	4
400	200	8
800	480	19



Critical Installation Notes



Do not Dry Fill!

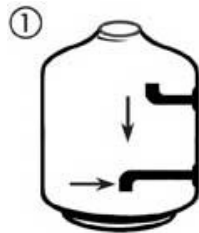
>95% of User Errors

- Never dry-fill ZeoSand.
- Fill the filter halfway with water before adding media.
- Cover the lateral standpipe during loading.
- Backwash until the water is fully clear before filtering.

Installation

ZeoSand contains a small amount of harmless green dust as a byproduct of the production process. Pre-rinsing the media before installation saves water and is especially recommended for small filters.

Step 1 - Preparation



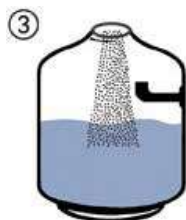
- Adjust sanitizer and algaecide levels to upper-normal.
- Drain the filter and perform necessary repairs.

Step 2 - Critical Filling Step



- Fill the filter halfway with water.
- Cover lateral assembly pipe.

Step 3 - Media Loading

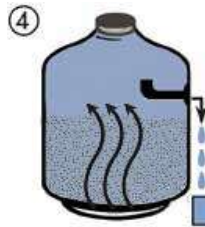


- Slowly add ZeoSand so that the media is wetted.



- Close the filter.

Step 4 – Backwash and Start-Up



- Backwash until the backwash water is clear.
- Allow media to settle for 5 minutes.
- Backwash for 2 minutes and rinse for 1 minute.
- Turn filter to Filter Mode.
- Verify sanitizer and algaecide levels.

Troubleshooting

Green Dust in Pool

Reason: Dry fill – Step 2 skipped.

Fix: Wet and fluff media with a running water hose used as a lance.
Backwash for 2 minutes, and rinse for 1 minute.

Result: Begins to clear in 24 to 48 hours.

Good Flow, Poor Clarity

Reason: Channeling in the filter bed

Fix: Wet and fluff media with a running water hose used as a lance.
Backwash for 1 minute.

Result: Begins to clear in 24 hours.

Clear Water Turns Green

Reason: Algae

Fix: Shock pool according to standard pool treatment protocol.
Vacuum as needed.

Result: Water becomes clear in 24 to 48 hours

Slow Clarity Improvement

Reason: Poor circulation

Fix: Adjust jets, increase sanitizer level, and run filter for six turnovers.

Result: Begins to clear in 24 hours.





Operational Best Practices

- Maintain sanitizer and algaecide levels at high-normal for three days and then normal.
- Run pump continuously until water clears.
- Backwash when the filter pressure increases by about 10 psi.
- Follow the filter manufacturer's instructions.
- Verify circulation coverage and avoid dead zones in pool corners.

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