

# Esen Zeolite Unlocking the Power of Natural Zeolite

With over 20 years of experience in Clinoptilolite mining, Esen Zeolite specializes in extracting and processing high-purity Clinoptilolite, a unique natural zeolite. Zeolites are minerals formed from the interaction of volcanic rocks and ash with alkaline water. They crystallize over thousands to millions of years, often in shallow marine basins, developing a porous structure and specific chemical properties that have a variety of industrial applications.

Located in Gördes, Turkey, our facility sits on a 55 million ton reserve, offering a steady supply of zeolite. The plant spans 5,000 square meters indoors on a 12,000 square meter plot, with a production capacity of 3,000 tons of zeolite monthly in eight different sizes. We ensure quality with daily sieve and moisture tests, and our safety measures include four strong magnets and a metal sensor to detect impurities.

Esen Zeolite's processing methods—such as crushing, grinding, and an advanced jet-plus-filter system—ensure a high level of purity in our zeolite products, catering to various industries.

## Application Areas of Esen Zeolite

- Feed Additive
- Animal Bedding & Odor Remover
- Cat Litter
- Soil & Grass Conditioner
- Plant Defense
- Water Treatment
- Industrial Usage
- Medical Cosmetics
- Construction & Building
- Biogas Stations

## Nature's Best for Your Water's Finest!

Discover the power of zeolite in water treatment. With its unique structure, it's an eco-friendly and effective way to improve water quality. Join us in creating cleaner, healthier water and a better world for all.

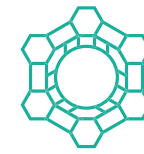


### Contact Us!

[info@esenzeolite.com](mailto:info@esenzeolite.com)

[esenzeolite.com](http://esenzeolite.com)

+90 216 510 21 75



ESEN  
Zeolite

## Partnering with Nature to Purify Water

### Zeo-Kler for Swimming Pool



Keep Your Pool  
Bright and Efficient

### Zeo-Kler in WasteWater Treatment



Solve Cleanly  
for Industrial  
and Domestic  
Wastewater

### Zeo-Kler in Pre-Water Treatment



Prepare Water  
for Drinking

## ZEO-KLER for Swimming Pools

ZEO-KLER is a natural zeolite product designed to replace quartz sand in swimming pool filters, offering numerous advantages in terms of water clarity, maintenance, and cost savings. With its high filtration capacity and unique properties, ZEO-KLER keeps your pool water bright and clean while reducing operational costs.

## ZEO-KLER for WasteWater Treatment

ZEO-KLER offers a natural and efficient solution for treating industrial and domestic wastewater. With its highly porous structure and inherent negative charges, ZEO-KLER can adsorb cations such as ammonium and heavy metals, keeping contaminants as small as 3 microns out of the water.

## ZEO-KLER for Pre-Water Treatment

ZEO-KLER offers a versatile and effective solution for pre-water treatment, providing a range of functions that contribute to cleaner and safer drinking and process water. Its unique ability to combine mechanical filtration, ion exchange, and easy maintenance makes ZEO-KLER a superior choice for water treatment at low costs.

### Why Choose ZEO-KLER for Swimming Pool?



#### Bright Water

ZEO-KLER ensures that your pool water remains crystal clear, creating a more inviting and enjoyable swimming environment.



#### Reduced Costs

By using ZEO-KLER, you can save on water, energy, labor, and chemicals. It also reduces backwashing frequency by up to 50%.



#### Versatile Use

ZEO-KLER can be used in all sand filters, both fast and slow types, providing flexibility in your pool's filtration system.



#### Improved Comfort

The use of ZEO-KLER reduces chloramines, odor, and eye irritation, making your swimming experience more pleasant.



#### Natural and Safe

As a completely natural product, ZEO-KLER is eco-friendly and free from harmful chemicals.

### Why Choose ZEO-KLER For Wastewater Treatment?



#### Reduced Operating Cost

The ability to absorb and retain contaminants reduces the need for chemical dosing, leading to lower operating costs.



#### Improved Effluent Quality

Produces better quality effluent, helping to protect the receiving environment.



#### Lower Sludge Disposal Costs

ZEO-KLER's improved sludge characteristics increase the reuse possibilities and reduce sludge removal costs due to better dewatering.



#### Decreased Chemical Use

Reduces the need for polyelectrolytes required for sludge dewatering, contributing to lower chemical substance costs.



#### Enhanced System Capacity

The increased capacity of wastewater treatment systems reduces initial investment and operating costs.

### Why Choose ZEO-KLER for Pre-Water Treatment



#### Cost-Effective

Provides a range of functions at low costs, reducing overall treatment expenses.



#### Easy Maintenance

Regeneration and maintenance are simple, contributing to reduced downtime and operating costs.



#### Enhanced Filtration

The improved filtration capacity results in higher flow rates and lower pressure drops.



#### Versatile Applications

ZEO-KLER's multi-functionality makes it suitable for a variety of water treatment scenarios.

## Customer Testimonials

*"We got cleaner water in 3 days. Now, we backwash every 3 weeks instead of every 2-3 days. The bonded chlorine level is also 0.3 ppm or less."*

*"We replaced the quartz sand in the filters with ZEO-KLER. Our pool, surrounded by trees, used to have a pollution problem. Now, the water is very clear, and we only backwash once a month. The pH remains constant, and we don't need to do shock chlorination."*

## Applications in Industrial Wastewater

- Electroplating:** Captures nickel and galvanized contaminants.
- Mineral Processing:** Adsorbs heavy metals and other pollutants.
- Textile Industry:** Removes dyes and chemicals from textile processing.
- Paint Industry:** Reduces heavy metals and chemical solvents.
- Glass Industry:** Traps contaminants from glass manufacturing.
- Battery Industry:** Absorbs lead and other battery-related pollutants.
- Photo:** Treats contaminants from photographic processing.

## Key Functions of ZEO-KLER

- Mechanical Filtration:** The granules' porous structure effectively filters out contaminants, providing clean water.
- Ion Exchange:** ZEO-KLER can adsorb cations such as iron, ammonia, manganese, potassium, calcium, and magnesium. Its adsorption rates vary depending on cation concentration, flow rates, and pH levels.
- Softening Water:** ZEO-KLER softens water by replacing calcium and magnesium ions, which cause hardness, with sodium ions. This process reduces scaling and improves water quality.
- Catalytic Oxidation:** The active surface of ZEO-KLER interacts with organic matter, aiding in its oxidation and inactivation, which contributes to a cleaner water supply.