

ZEOLITE CLINOPTILOLITE

APPLICATION AS



SOIL CONDITIONER

OPTIMIZED WATER AND FERTILIZER USAGE

Zeolite is a soil conditioner and fertilizer additive that acts as a reservoir for water and plant nutrients. They are characterized as high capillary porous structures and high cation exchange capacities.

Zeolite, thanks to its High Capillary Porous Structure;

- Increases water absorption and retention. Economizes water usage.
- Acts as a water reservoir in dry and sandy fields.
- Keeps beneficial microorganisms in the soil alive.
- Absorbs excess water, and thus prevents root decays and fungal diseases.
- Aerates the soil.

Zeolite, thanks to its High Cation Exchange Capacity;

- Holds and slowly releases ammonia, nitrogen, potassium and phosphorus.
- Transforms your regular fertilizer into a slow - and controlled - release fertilizer. Economizes fertilizer usage.
- Reduces fertilizer volatility and prevents loss of fertilizer due to leaching.
- Absorbs excess ammonia, and thus prevents root burns.
- Cultivates your plants & trees continuously in harmony.
- Cleans your soil from toxic materials and metals. Acts as a pesticide, fungicide, herbicide carrier.

If your soil is sandy or clayey, ATTENTION please!

Zeolite regenerates your sandy soil. It absorbs fertilizers and nutrients in the soil and prevents them from leaching with the irrigation water. After adsorbing fertilizers and

nutrients, it enriches and moisturizes your sandy soil. Zeolite aerates your clayey soil. It prevents sludge formation. Enables the plant roots to access the fertilizers & nutrients easily. It stimulates the microorganismic activities in the soil.

THE ADVANTAGES OF ZEOLITE OVER OTHER CONDITIONERS

- Improves the soil quality. Decontaminates the soil.
- Excellent hardness. Stable in soil.
- Economic and effective for many years.
- Improves the efficiency of fertilizers. Reduces fertilizer costs.
- Easy application, storage and transportation.
- Produced by the zeolite leader in Turkey, under the Fami-Qs quality control system, from the worlds' purest zeolite mineral with Ecocert certificate.
- Completely safe and toxic-free. There is no risk or danger of overdosage. 100 % natural and environmentally friendly.
- Prevents groundwater contamination that otherwise occurs in the absence of zeolite, due to fertilizers and other nutrients that are applied to the soil.

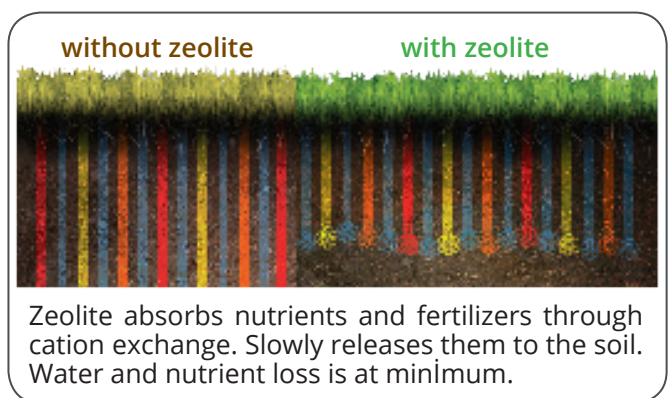
HIGH ECONOMIC RETURNS WITH A LOW COST

Zeolite yields high economic benefits with only a little expenditure.

Zeolite, when mixed with compost materials, improves compost quality and prevents leachate and bad odors.

FOR BEST RESULTS!

Since Zeolite acts as a reservoir for water and plant nutrients, best results are obtained if charged with fertilizers before or soon after mixing it with soil.



 **rota mining
corporation**
YOUR RELIABLE PRODUCER

**SUSTAINABLE AND COST EFFECTIVE
STABLE IN SOIL**

**ENVIRONMENT FRIENDLY PRODUCT
SAFE & 100% NATURAL**

ZEOLITE CLINOPTILOLITE

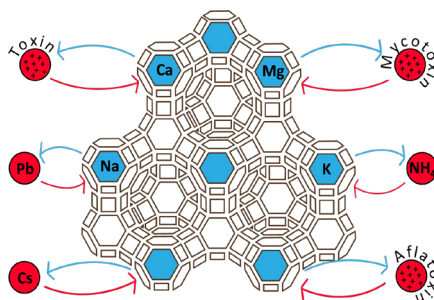


CONTENT

Zeolite is a crystalline, hydrated aluminosilicate that has an infinite three dimensional structure. Rota Mining's Zeolite contains extremely pure Clinoptilolite (92% by mass on average), which is one of the most effective Heulandite type of zeolite. Its highly porous structure (with a porosity reaching 50%) provides an extremely large surface area on which chemical reactions and cation exchanges can take place at a very high degree. It can absorb incredible amounts of water/liquid into its pores. Clinoptilolite has a natural negative ion charge which furnishes it with a tremendously high cation exchange capacity (CEC). Thanks to CEC, it adsorbs and binds ammonium, toxins, mycotoxins and heavy metals like Ni, Pb, Hg and Cd, very efficiently and effectively.

CATION EXCHANGE CAPACITY

Cation exchange capacity (CEC) is a measure of the amount of cations (positively-charged ions) that a clay can catch. As mycotoxins, toxins, heavy metals and ammonium are all positively charged, they are all easily trapped by cation exchangers. Clinoptilolite from Rota Mining's Gordes / Manisa reservoir possesses by far one of the highest CEC rates (as high as $170 \text{ cmol} \cdot \text{kg}^{-1}$) among all reservoirs in the world. Purity and CEC are the two vital parameters that define the quality of zeolite mineral.



THE PRODUCER, ROTA MINING

Rota Mining is the leading natural Zeolite - Clinoptilolite mineral producer and exporter in Eurasia. It was founded in 1995. Since 2003, it is only specialized in the production and the marketing of its own natural Zeolite mineral; and is committed to setting the standards for the natural zeolite industry in the world. It carries out its production under Fami-Qs quality control system since 2007. Thanks to the high purity of its ore and to the quality of its service, Rota Mining serves its products to more than 50 countries in the world.



**MINIMUM
80% PURITY
GUARANTEE**



APPLICATION

Plantation and greenhouse: 150 - 250 kg / 1000 msq. Mix with soil before or during seeding / planting.

Trees: 5 - 15 kg per tree. Dig 15 cm deep throughout the crown projection of the tree. Mix with soil.

Seedling: Mix with seedling soil in 1 to 1 ratio.

Grass: 400 kg / 1000 msq. Mix with soil before seeding / planting.

SUITABLE SIZES

- 0,7 - 1,6 mm
- 1,6 - 3 mm
- 3 - 5 micron
- 5 - 9 micron

THE PRODUCT

100% natural & safe product. Certified by Ecocert for use in organic farming. Produced in accordance with the EU's Feed Additive and Premixes directive and under the strict quality control system and surveillance of Fami-Qs. Non-toxic. Suitable for soil-less and organic farming.

Information herein is accurate to the best of our knowledge, but may be subject to change without notice. Suggestions are made without warranty or guarantee of results. Before using, user should determine the suitability of the product for its intended use and user assumes the risk and liability in connection herewith.



FAMI[®]QS

Rota Madencilik AS - Rota Mining Corporation
Tel: +90 216 385 1600 www.rotamining.com
Fax: +90 216 385 4297 info@rotamining.com

