

KMI Zeolite

Soil Amendment & Ice Traction

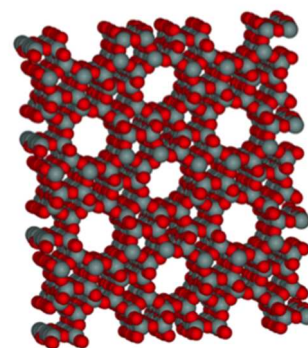


Zeolite acts as a water and nitrogen trap allowing grasses and plants to access the water and nutrients they need when they require them due to the natural slow release of the structure.

Zeolite conserves and releases both nitrogen and water. This means that plants benefit from access to more nitrogen over a longer period of time and require less water to grow. This two-fold effect requires no increased input of either fertilizer or increased irrigation. Multiple studies have shown that using Zeolite as a soil additive will decrease fertilizer and water usage with equal or better results.

Numerous research efforts conducted worldwide have shown the benefit of zeolite in retaining water and fertilizer in a plant's root zone. Zeolite acts as a water and nitrogen trap allowing grasses and plants to access the water and nutrients they need when they require them. This not only conserves one of our most valuable resources in increasing demand - water, but also reduces stress on grasses by providing a source of water over a longer period of time than typical soil conditions will provide.

Zeolite is often called a molecular sieve. The molecular structure has a sponge-like framework of an aluminum and silica atoms,



connected by oxygen atoms. This framework attracts and binds cations such as nitrogen, calcium and potassium.

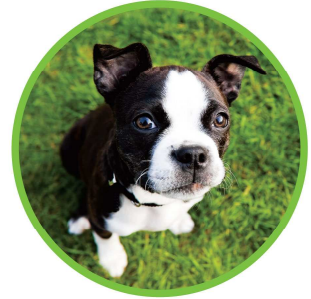
Zeolite holds water molecules in this open framework available to the plants as they require it. In addition to the water retention and time release, Zeolite **traps** molecules of ammonia (nitrogen). As with water, the ammonia is retained within the zeolite particle until demanded by a plant root system.



Creates healthier, greener lawns that will retain more nutrients and require up to 35% less water.



Produces delicious, nutrient rich fruits & vegetables and vibrant flowers & plants in gardens and potting mixes.



Prevents and repairs damaging burns caused by pet urine and chemical spills.

Moisture Retention

Zeolite acts as a reservoir for water and plant nutrients, holding the moisture in the growth zone. This reduces the amount of water needed for irrigation by up to 35%. Zeolite recharges itself from rainwater alone!

Higher CEC Count

Applying the recommended amount of zeolite increases the soil's cation exchange capacity (CEC). A higher CEC count results in a greater loading of plant nutrients as required.

Better Fertilizer Usage

Because Zeolite is an environmentally friendly, non-chemical product which increases CEC, consumers benefit from a greater retention of valuable fertilizer when spreading highly soluble ammonium.

The Benefits

- Increased effectiveness of fertilizers - zeolite holds and gently releases the nitrates and potassium in your fertilizer.
- Aids in neutralization of the pH in your soil to repair damaged grass.
- Prevents compaction of the soil.
- Helps aeration of the deep roots systems.
- Reduced irrigation rates.
- Increases re-sod rates and vegetation turnover.
- Zeolite does not decompose - it continues to work as long as it is present in the soil or turf.

Conclusion

Zeolite is a 100% organic (OMRI certified), soil and fertilizer enhancer that increases water retention, reduces run-off, leaching and evaporation. It enhances seed germination and sprout emergence, promotes root extension and root mass while creating a semi-permeable barrier in the root zone, and also adds to the soils aeration by preventing compaction of the soil.

In the end, zeolite will give you tastier tomatoes, greener grass and brighter flowers using less water and retaining more nutrients. Zeolite will also prevent and repair grass burns from ammonia exposure.

The science behind zeolite's effectiveness is its ability to attract water and positively charged nutrients like nitrogen, phosphorous and ammonia, trap them in its honeycomb structure and release them as the plant root requires them. Evapotranspiration is the sum of evaporation and plant transpiration (movement of water within a plant and subsequent loss through stomata). The zeolite granule reduces the grass' reliance on evapotranspiration, which is useful both in arid climates as well as those with a high water table as it provides a more stable supply for the plant. Zeolite's unique properties help regulate the grass' access to water and nutrients which makes it less sensitive to irrigation, be it too much or too little moisture added to the plants.

Zeolite is developed from a negatively charged volcanic mineral and retains 50% of its weight in water and nutrients, which would otherwise be lost due to run-off. Once the concentration of water and nutrients in the soil becomes less than that of the saturated Zeolite mineral, the plant root goes in search of water and nutrients. Zeolite slowly releases them back into the soil making them available for the root; resulting in a healthier plant requiring significantly less water, fertilization and time.

Zeolite works on potted plants, floral gardens, vegetable gardens, trees & shrubs, compost and turf-grass seeding, repair, aeration, sod installation, new landscaping, top soil amendment and urine spots.

Initial Branding Concept

The image shows a product packaging design for 'pūrgro organic lawn & garden mix'. At the top, a green banner asks 'Q: want to use less water? / Vous voulez utiliser moins d'eau?'. Below this is the brand name 'pūrgro' in a stylized green font, with 'organic lawn & garden mix.' and 'mélange organique de pelouses et jardins.' underneath. The packaging features three circular images: a green lawn, a basket of vegetables, and a dog. Each image is accompanied by text describing its benefits: 'Creates healthier, greener lawns that will retain more nutrients and require up to 50% less water.', 'Produces delicious, nutrient rich fruits & vegetables and vibrant flowers & plants in gardens and potted mixes.', and 'Prevents and repairs damaging burns caused by pet urine and chemical spills.' At the bottom, a green banner indicates the weight '10 kg'.

Q: want to use less water? / Vous voulez utiliser moins d'eau?

pūrgro
organic lawn & garden mix.
mélange organique de pelouses et jardins.

 Creates healthier, greener lawns that will retain more nutrients and require up to 50% less water.
Créez une pelouse en meilleure santé et plus verte qui retiendra plus de substances nutritives et qui nécessitera 50% moins d'arrosage.

 Produces delicious, nutrient rich fruits & vegetables and vibrant flowers & plants in gardens and potted mixes.
Produit des fruits et légumes délicieux et riches en substances nutritives et produit des fleurs et plantes vibrantes dans les jardins et des bacs de rempotage.

 Prevents and repairs damaging burns caused by pet urine and chemical spills.
Prévient et répare les brûlures dommageables causées par l'urine des animaux et les versements chimiques.

10 kg



Safe for kids, pets and wildlife. Safe for any exposure or accidental ingestion.



Embeds directly into the ice surface, creating superior traction.



For removal, simply sweep onto surrounding vegetation for greener, healthier lawns and plants.

Superior Traction

- Proven to provide better traction than sand, using much less
- Instant traction during dangerous ice storms and freezing rain
- Embeds itself into ice and snow for long-lasting traction
- No working temperature limitations like salt and ice smelts
- Just one cup of zeolite can cover one whole parking space (144 square feet)

Safe for You, Your Family and Your Property

- Safe to touch or accidentally ingest by children, pets and wildlife
- Will not burn or damage grass or plants
- Will not corrode or damage brick, stone or uncured concrete
- Will not rust vehicles or metal landscaping elements
- Will not stain clothing or carpets
- Does not contain any carcinogenic silica dust like sand
- Contains no salt, chlorides, chemicals, or dyes

Naturally Benefits Our Environment

- Aerates soil through its porous 'honeycomb' structure
- Releases nutrients and minerals back to plants slowly
- Retains water in the soil medium longer reducing watering requirements
- Reduces lawn damage from dog urine as it neutralizes the ammonia before it burns the grass
- Absorbs and removes heavy metals from lakes, rivers and sewage
- Filters the air from noxious fumes and absorbs nuisance odors
- Even absorbs the residual white sodium staining caused by salt and ice smelts

User Friendly

- Resists freezing or clumping
- Accelerates ice melting by absorbing solar radiation
- Simply sweep zeolite onto your lawn and garden in the spring, or collect for re-use the following winter
- Or re-use for multiple other household applications

Environmentally Beneficial Ice Melt/Traction

Blending 100% natural urea pellets with a 50/50 ratio, added chemicals, and developed formulas, Zeolite with additional ice melting properties. A less harmful blend of ice melting agents than typically seen on the market have been added to create an effective ice melt / high traction product. The science behind the effectiveness of Zeolite lies in the ability of its porous condition to produce a highly effective ice melting ingredient, zeolite, which generates heat. As Zeolite down the ice surface, it will generate heat directly by the zeolite mineral, creating a high traction surface. This synergistic relationship improves the effective temperature to -20°C or -4°F .

Zeolite will not harm pedestrians or animals through contact exposure or ingestion. Unlike sand or salt, Zeolite will create a protective side effect of that it heats the surface, preventing pedestrian or animal falls and a dramatic difference in injuries to lawsuits as well as damaging relocation of the product in buildings and excessive product usage.

For disposal of zeolite, simply sweep and evenly disperse onto surrounding vegetation. Unlike commonly used ice melts are chemically based products which can have a negative impact on wildlife, plant life and exposed surfaces. Zeolite blended with urea pellets will not harm pedestrians or animals. Zeolite will not harm plants, tree beds and gardens. In fact, as Zeolite is swept onto these areas during spring run-off, it provides a secondary benefit. Zeolite placed on vegetated areas will work its way into the soil environment and assist in soil aeration, water & nutrient retention and facilitate a healthy soil condition. Zeolite is 100% natural without any added chemicals or negative impacts on our environment.

Zeolite blended with Calcium Chloride (CaCl) and Salt (NaCl) utilizes the same natural zeolite as zeolite with additional ice melting properties. A less harmful blend of ice melting agents than typically seen on the market have been added to create an effective ice melt / high traction product.

With the addition of CaCl (most effective ice melter ingredient) and sodium chloride, the blend quickly generates heat, breaking down the ice surface to allow a greater absorptancy by the Zeolite mineral, creating a high traction surface. This synergistic relationship improves the effective temperature to -31°C or -24°F .

Utilizing a reduced NaCl and CaCl blend, many negative side effects of traditional ice melt have been significantly reduced. The Zeolite minerals will absorb many of the damaging chemicals, and retain them in their internal helical structure, whereby preventing their introduction in the surrounding vegetation. Customers will see a noticeable difference in the surrounding 'burn' damage.

For disposal of remaining blend in areas of surrounding vegetation, simply soak affected areas with water to flush away chemical remnants. Water absorbed by the zeolite, creates a concentration gradient causing the Zeolite mineral to release the chemicals and eventually act as a water and nutrient sponge, which enhances the longevity of surrounding vegetation.

KMI ZEOLITE

SOIL AMENDMENT & ICE TRACTION

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