



AGRICULTURE GREEN ZEOLITE COMPANY



We aspire to become the global leader in the sales and distribution of zeolite by delivering top-quality products and exceptional services that not only meet but surpass the expectations of our customers. Our mission involves raising awareness and supplying the world with pure, natural zeolite in the most sustainable manner possible. Additionally, we aim to broaden our customer base and geographical reach to enhance market accessibility. We are dedicated to growing our market share while adhering to sustainable and responsible business practices, thereby safeguarding the environment and fostering sustainable development.

2025



"At Agriculture Green Zeolite Company, we recognize the critical importance of zeolite in addressing the challenges facing agriculture in the 21st century, particularly in the context of climate change. Zeolite is a game-changing mineral that enhances soil quality, improves water management, and boosts crop productivity. We actively engage with farmers, providing comprehensive support and expertise through technical guidance, educational resources, and collaborative partnerships. Together with our partners and stakeholders, we are determined to shape the future of agriculture, ensuring food security and promoting a sustainable farming ecosystem."

Faisal Al-Asaly

Founder & CEO



Agriculture Green Zeolite Co. specializes in zeolite extraction, production, and processing. We proudly hold the esteemed accreditation from the International Natural Zeolite Association (INZA). Our remarkable standing as the First ranked company worldwide, as acknowledged by www.ventureradar.com, is a testament to our unwavering commitment to excellence.

At the core of our operations lies the production of the unparalleled Chabazite zeolite ore. Renowned for its unmatched purity and superior quality, our meticulous attention to detail ensures that our products consistently meet the highest standards.

The products of Agriculture Green Zeolite Co. have been examined, tested, and approved by multiple accredited entities. Its remarkable efficacy has been proven in diverse fields, including agriculture, Hydroponic, Fish farming, feed additives, and wastewater treatment. Through strategic collaborations with esteemed institutions such as the Royal Scientific Society, NARC, and renowned Jordanian and British universities.

<https://www.ventureradar.com/search/all/Zeolite/>

OUR CORE OPERATIONS

Training and Development

The company has entered into a series of private and public cooperative agreements, including partnerships with the University of Jordan, the Jordan University of Science and Technology, the National Company for Training and Employment, the Hashemite Fund, and various public and private institutions. A series of farmer field schools on the importance of zeolite were conducted in collaboration with the Jordanian Ministry of Agriculture.

Field Trials

We have conducted agricultural trials with leading farmers and growers both within and outside the Kingdom of Jordan, including companies like Al-Sharika Al-Masiah, Hassan Abu Sido, Delmonti, and Juma'an Al-Awn. These trials encompassed various crops, such as fruit trees, vegetables, ornamental plants, protected and open-field agriculture, organic farming, forage crops, soilless and hydroponic farming, fish farming, animal production, and water purification.

Local & International Exhibitions

The company has actively participated in a wide range of significant local and international exhibitions and scientific conferences, including:

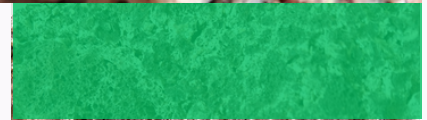
- Earth Forum/Al-Balqa
- Conference on the Role of Gene Banks in Food Security/Amman Private University
- International Exhibition on Garden Design & Desertification Control/Saudi Arabia
- Desertification Conference/Egypt
- International Sahara Exhibition/Egypt
- Riyadh Exhibition/Saudi Arabia, and more

Local Sales & Global Exports

The product has demonstrated its effectiveness across various domains, leading to high demand and widespread usage. As a result, it has been supplied to most governorates within the Kingdom of Jordan and exported to numerous countries, including neighboring Arab countries such as Iraq, the United Arab Emirates, Saudi Arabia, Egypt, Kuwait, Palestine, and Lebanon.

Journals, Research, and Master's Thesis

Gulf Magazine has featured multiple articles highlighting our company and the significance of zeolite. In our dedication to scientific research, we have supported master's thesis for students. Collaborating with universities inside and outside the Kingdom, including the University of Jordan, Al-Balqa Applied University, and Hashemite University in Jordan, as well as the University of Mosul and Tikrit University in Iraq, we have conducted studies exploring diverse applications of zeolite.



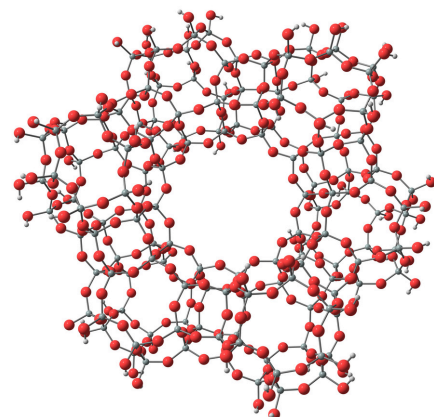
WHAT IS CHABAZITE?

- Chabazite is a type of Zeolite mineral belonging to the Aluminosilicates family.
- It is characterized by its chemical formula $(Ca, K_2, Na_2, Mg)Al_2Si_4O_{12} \cdot 6H_2O$.
- Exhibits a unique crystalline structure that contributes to its diverse applications in agriculture, industry, and medicine, among others.
- Chabazite is typically found in volcanic rocks formed through the interactions of volcanic magma in alkaline freshwater environments.
- Notably, chabazite is recognized for its exceptional quality, surpassing other zeolite types in various aspects.

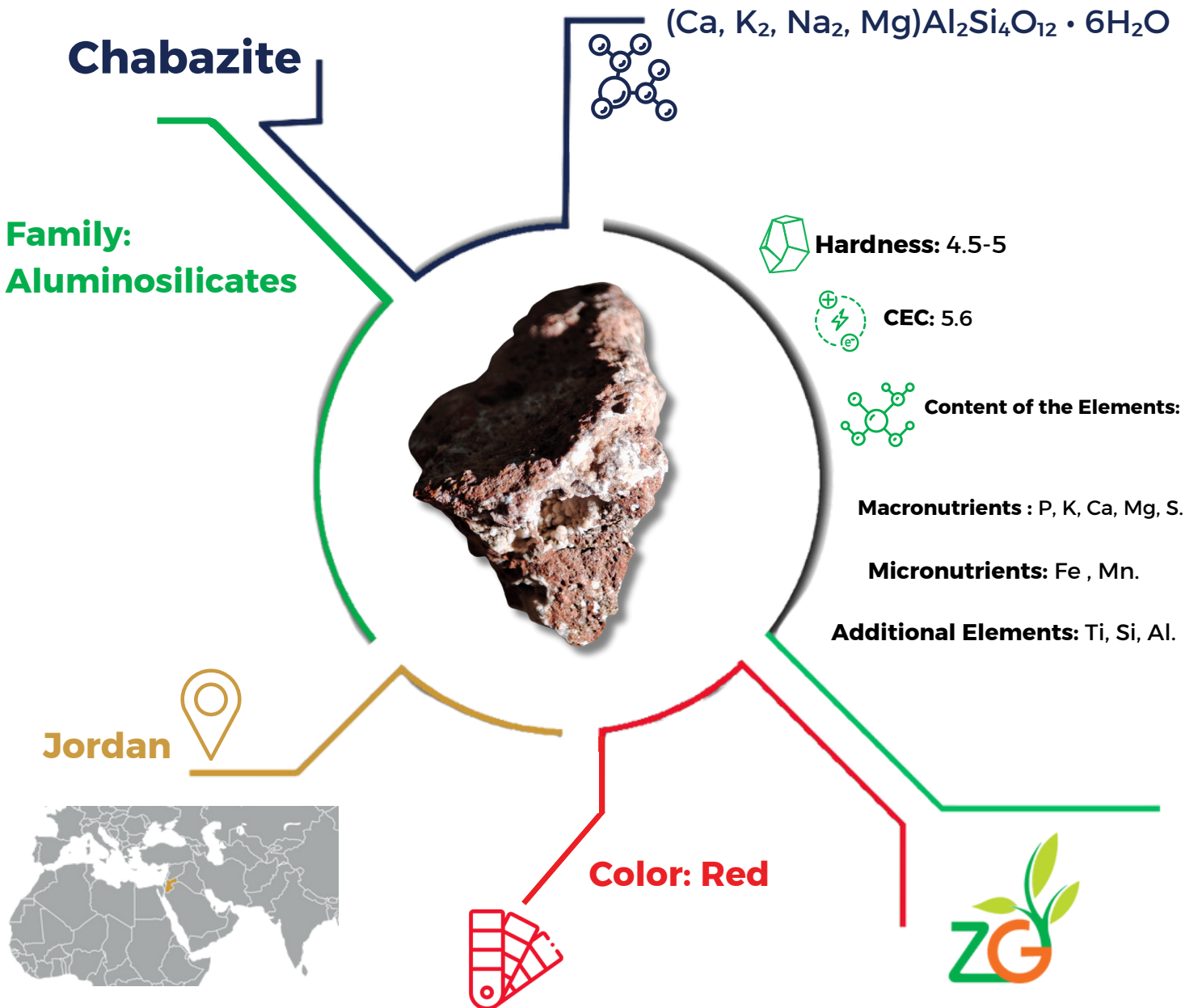
The Agriculture Green Zeolite Co. mining site was discovered by expert geologists and mining specialists. Chabazite is found in this mine in significant quantities. The study of chabazite in Jordan has been conducted by researchers and geologists to gain a better understanding of the country's geological history and formation. The zeolite mineral provides valuable information about the geological processes that have occurred in the region over millions of years.

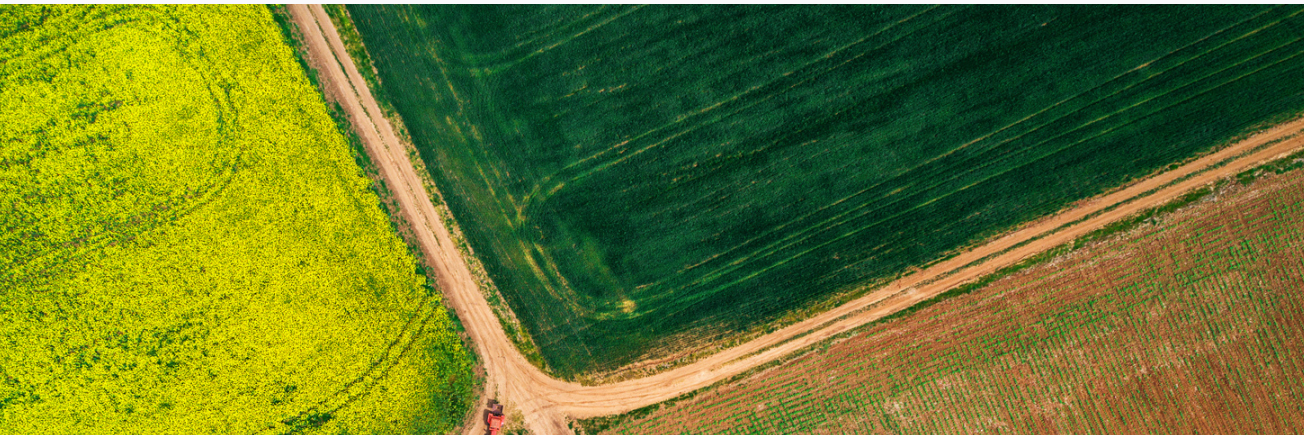


Zeolite is mined, processed, and undergoes grinding and sieving to produce a range of diverse particle sizes that cater to various applications.



THE OUTSTANDING PROPERTIES OF OUR CHABAZITE





KEY PROPERTIES OF CHABAZITE

Zeolite possesses several distinguishing properties that set it apart from other minerals. The most notable ones include the following:

01

Water Retention

Chabazite possesses exceptional water retention capabilities due to its unique porous structure. This allows it to effectively absorb and retain water and moisture for extended periods. This property makes zeolite an excellent choice for fulfilling long-term water needs efficiently.

02

Exchange Capacity

Chabazite is prized for its high ion exchange capacity, making it valuable in various industries. It selectively replaces ions, allowing for pollutant removal and beneficial element addition. It finds applications in water purification, soil improvement, and gas separation.

03

Sustainability

Chabazite is considered a sustainable product as it remains in the soil for over 30 years, providing long-term benefits.

04

Porosity

Chabazite exhibits a notable level of porosity, enabling it to effectively adsorb and desorb molecules. Its crystalline structure features interconnected channels and cage-like cavities, resembling the hexagonal cells of a honeycomb.

05

Nitrogen Fixation

The high porosity and adsorption capacity of zeolite facilitate the growth of nitrogen-fixing bacteria on its surface. These bacteria convert nitrogen ions into nitrates, increasing nitrogen availability for plants. This enhances nitrogen fixation (indirectly) and plant productivity.

06

Adsorption

Thanks to its exceptional adsorption properties, allowing it to effectively adsorb molecules on its surface, especially in gas-phase reactions, making it highly effective in various applications such as gas storage and purification, as well as chemical catalysis.

06

ZEOLITE REVOLUTIONIZES AGRICULTURE

The field of agriculture is undergoing tremendous changes, with constant exploration for sustainable and efficient ways to feed the world's growing population. This is where zeolite steps in, adding a big touch of magic to these efforts. It may seem like an ordinary mineral on the surface, but within it lies the secret to enhancing soil quality and increasing plant productivity.

From its ability to absorb and retain water and nutrients to improving soil aeration and guiding plants towards optimal growth, zeolite proves to be a safe natural ally for farmers in their quest to increase productivity and improve quality.



If you're looking for ways to make the world of agriculture more sustainable and efficient, there's no need to search far. Let's explore together how zeolite can be the magical element that revolutionizes agriculture and opens new horizons for our agricultural future.

Zeolite Key Benefits in Plant Production



- Increased porosity and reduced soil compaction.
- Improving soil aeration and water infiltration.
- Mitigating soil erosion by enhancing soil stability and reducing surface runoff.
- Reclaiming degraded soil areas.
- Alleviating soil salinity and balancing pH levels.
- Effective removal of heavy metals and toxins from the soil.
- Promoting beneficial microbial activity in the soil.



- Enhancing soil structure promotes strong and healthy root growth.
- The penetration of oxygen and sunlight into the soil contributes to the development of a strong and healthy root system.
- Improving nutrient supply to the root zone.
- Enhanced water retention capacity prevents water stress and improves irrigation efficiency.

- Achieve astonishing plant growth and excellent health.
- Maximize biological activity and germination capacity by promoting vegetative growth.
- Enhance fertilizer use efficiency by increasing plant nutrient uptake.
- Boost plant resistance against biotic and abiotic stressors.
- Ideal for use in organic farming.

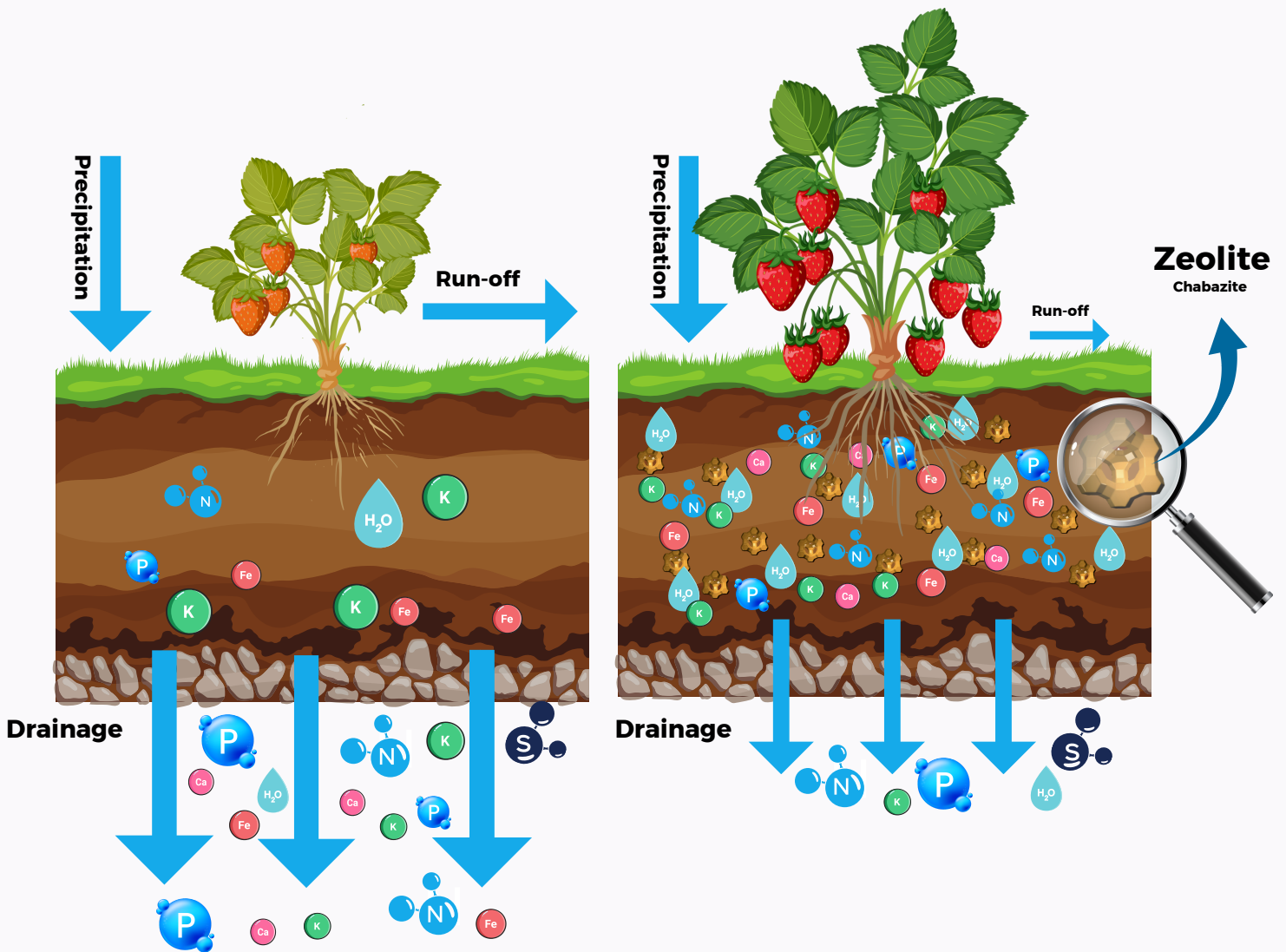


- Increases both quantity and quality of production.
- Enhances the concentration of active compounds in fruits, such as olives oil and organic acids in citrus fruits.
- Reduces reliance on chemical fertilizers and pesticides, resulting in safe and healthy products.
- Improves fruit flavor and extends post-harvest shelf life.





MECHANISM OF ACTION OF ZEOLITE IN THE SOIL





Treated



Control

A remarkable improvement in strawberry seedlings using zeolite mineral, exhibiting a significant increase in root growth compared to the control group.



After Treatment



Before Treatment

The impact of adding zeolite mineral to the soil of rose plants was studied, and positive results were observed within just one week.



Treated



Control

The addition of zeolite mineral to lavender plants resulted in flowering occurring within one month of treatment, accompanied by a reduction in water consumption.



After treatment



Before treatment

Before incorporating zeolite, the plant exhibited stunting and poor growth. Significant improvements observed within a two-week period after treatment.



Treated



Control

The application of zeolite to the grapes resulted in noticeable effects, including desirable cluster compaction and increased yield.



Control



Treated

The results demonstrate an enhanced plant resistance to pathogens and the suppression of soil-borne pathogens (fungi and nematodes).

THE SIGNIFICANCE OF ZEOLITE IN COMPOSTING PROCESS

- **Improving moisture retention:**
It absorbs water molecules and retains them, helping to maintain the moisture of the compost pile. and reducing the need for frequent watering.
- **Improved cation exchange capacity:**
Zeolite possesses a high cation exchange capacity, attracting and exchanging ions with the surrounding environment. This aids in enhancing soil fertility and nutrient absorption by plants.
- **Increasing nutrient retention:**
It absorbs and retains nutrients such as nitrogen, potassium, and phosphorus, thus preventing the loss of these nutrients through leaching or volatilization and making them more available for plants.
- **Enhanced aeration & reduced soil compaction:**
Zeolite's porous structure improves airflow, promoting faster and less odorous aerobic decomposition. It also loosens compacted soil, enhancing root penetration and nutrient/water access for plants.
- **Ammonia odor reduction:**
Zeolite effectively absorbs and retains ammonia molecules, resulting in a remarkable 95% reduction in the strong ammonia odor emitted by organic fertilizers with high nitrogen content.
- **Reduced leaching:**
Zeolite retains nutrients and organic matter, preventing their loss through leaching in areas with heavy rainfall or irrigation. This improves compost quality, leading to healthier plants, increased soil productivity, and higher yield.





OPTIMIZING ANIMAL PRODUCTION WITH ZEOLITE

Due to its exceptional characteristics, zeolite has demonstrated significant utility in the field of fish farming. When employed in fish farms, zeolite serves to diminish water hardness, augment water clarity, mitigate ammonia levels, and elevate oxygen levels. Consequently, these favorable conditions foster amplified fish production, heightened fish well-being, and improved meat quality.

Zeolite has been widely employed as a supplement in animal feed for poultry and livestock, primarily due to its immune-enhancing properties and its ability to mitigate disease incidence. Additionally, zeolite finds application in barn bedding to effectively absorb ammonia odors and minimize diseases associated with bedding materials.



ZEOLITE IN INDUSTRIAL APPLICATIONS



Zeolite is utilized in the treatment of wastewater, drinking water, and grey water to effectively purify and filter different kinds of pollutants. Leveraging its exceptional adsorption and ion exchange capacity, zeolite efficiently removes toxins, heavy metals, and impurities, ensuring the purification of water.



Zeolite's versatile applications span across multiple fields, including landscaping, gardening, industry (such as dyes, coatings, and adhesives), construction (in building and asphalt), mushroom production, and the medical field. Particularly in the medical field, zeolite has gained significant attention. Numerous studies have demonstrated its potential in mitigating the side effects of cancer treatment.



XRD ANALYSIS



The Hashemite Kingdom of Jordan
 Ministry of Energy and Mineral Resources/ Laboratories & Quality Directorate

TEST REPORT

X-Ray Diffraction Analysis ACCORDING TO IN HOUSE MEMR METHOD 002-2016

Division: Chemical & Mineral Analysis

Date: 10/9/2018

Client Name & Address: شركة الزيوليت الأخضر الزراعية

Test Report No.: 146/9/2018 CH17

Sample Type: zeolite

Sample Location:

Sampling method: By client

Date of Receipt: 4/9/2018

Testing Date: 9/9/2018

Sample Preparation: Random

Instrument Bruker (D4 ENDEAVOUR)

Tension [KV] = 40

Radiation: Cu

Current [MA] = 30

Angle Range: (5-65)

| Item | Serial No. | Sample ID | Ch | FA | PH | Cc | Au | Pi |
|------|------------|-----------------|-----|----|-----|----|----|----|
| 1 | 1178 | B1-TR1-146/9/18 | *** | ** | *** | ** | ** | * |
| 2 | 1179 | B2-TR1-146/9/18 | *** | ** | *** | ** | ** | - |

*NOTE: Key: Based on relative XRD high peak data :(Major: ***, Minor: **, Trace: *, Negative :-)

Ch= Chabazite FA= Faujasite PH= philipsite

Cc= calcite Au= Augite Pi=Pigeonite

- THE TEST RESULTS RELATE ONLY TO THE ITEMS TESTED & BROUGHT BY CLIENT
- TEST REPORT IS ONLY VALID WITH MEMR STAMP & SIGNATURES.
- THE TESTS WERE PERFORMED ACCORDING TO YOUR REQUEST.

Analyzed By: Eng.Maysoon alkhzahee

Eng. Kholoud Ayyash

Division Head: Eng.Maysoon alkhzahee

Technical Manager: Chemist Eman Fahmawi

Laboratories & Quality Director / Quality Manager: Eng. Omar Tahat

XRD ANALYSIS



The Hashemite Kingdom of Jordan



Test -061 Ministry of Energy and Mineral Resources/ Laboratories & Quality Directorate
TEST REPORT

Sieve Analysis of Fine and Coarse Aggregates ASTM C136 /136M-14

Division: Soil & Rock Mechanics

Date of Report: 5/9/2018

Client Name & Address : شركة الزيوليت الاخضر الزراعية

Test Report No. : 146/9/2018

Sample Type: Zeolite – B2

Sample Location: -

Sampling method: By client

Date of Receipt: 3/9/2018

Testing Date: 5/9/2018

| Type of Material: Zeolite – B2 | | | | |
|-----------------------------------|---------------|---------------------|-----------------------|----------------------|
| Total weight of sample : 235.8 gm | | | | |
| Designation | Sieve (mm) | Wt. Retained (g) | Wt. of Passing (g) | Total of Passing% |
| "1.5 | 37.5 | | | |
| "1 | 25 | | | |
| "3/4 | 19 | | | |
| "1/2 | 12.5 | | | |
| "3/8 | 9.5 | | | |
| 4 | 4.75 | 3.2 | 232.6 | 98.6 |
| 8 | 2.36 | 37.8 | 194.8 | 82.6 |
| 16 | 1.18 | 41.40 | 153.4 | 65.1 |
| 30 | 0.600 | 41.90 | 111.5 | 47.3 |
| 50 | 0.300 | 39.10 | 72.4 | 30.7 |
| 100 | 0.150 | 29.20 | 43.2 | 18.3 |
| 200 | 0.075 | 21.10 | 22.10 | 9.37 |

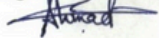
* THE TEST RESULTS RELATE ONLY TO THE ITEMS TESTED & BROUGHT BY CLIENT

* TEST REPORT IS ONLY VALID WITH MEMR STAMP & SIGNATURES.

* THE TEST WAS PERFORMED ACCORDING TO YOUR REQUEST.

* ملاحظة : تم اختيار وزن العينة من قبل طالب الفحص.

Analyzed By: Eng. Ahmad Abu Ras



Approved by: Eng. Husni Alsaqer



Technical Manager: Chemist Eman Fahmawi



Division Head: Eng. Nabil Udellat



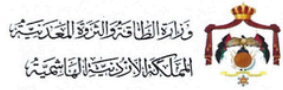
Laboratories & Quality Director / Quality Manager: Eng. Omar Tahat.



Jordan –Amman- Al Byader- 8th Circle . – Telefax +96265504409 – P.O. Box.7

(Web site: www.memr.gov.jo)

XRF ANALYSIS



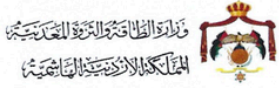
X-Ray Spectrometric Analysis Test Report



| Test Report No. : 00086/03/2024-CH-001-045 | | | | | | Test Report Date : 12/03/2024 | | | | | |
|--|-------------------|--|-------------|--------------------------------------|--------------------------|---|--------------------------|--|-------------|---------------------------|---------------|
| Lab Name : Laboratories of Quality Directorate at the Ministry of Energy and Mineral Resources | | | | | | | | | | | |
| Lab Address : Ministry of Energy and Mineral Resources - 8th Circle Bayader Wadi Al Seer, Amman – Jordan (www.memr.gov.jo) | | | | | | | | | | | |
| Client Name : Agriculture Green Zeolite CO | | | | | | | | | | | |
| Client Address : moath.bbader@gmail.com | | | | | | | | | | | |
| Division : Chemical & Mineral Analysis Lab / XRF Lab | | | | | | Testing Location : At the Lab facility. | | | | | |
| Methods Used : BS EN 15309:2007 | | | | Lab Ref. Work Instruction: WI-REP-01 | | | | Used for: X Ray spectrometric analysis & LOI | | | |
| Sampling Method : By customer | | | | | | Sample Reception Date: 06/03/2024 | | | | | |
| Testing Date : 10/03/2024 | | | | | | Sample Location : - | | | | | |
| Sample Type (As Received) : زيولايت | | | | | | | | | | | |
| Table 1: | | | | | | | | | | | |
| Test Results | | | | | | | | | | | |
| Item | Sample Identity * | Fe ₂ O ₃ Wt.% | MnO Wt.% | CaO Wt.% | K ₂ O Wt.% | P ₂ O ₅ Wt.% | SiO ₂ Wt.% | Al ₂ O ₃ Wt.% | MgO Wt.% | Na ₂ O Wt.% | L.O.I Wt.% |
| 1 | Zeolite | 12.89 | 0.15 | 10.97 | 1.63 | 0.90 | 39.27 | 10.80 | 9.23 | 1.39 | 10.04 |
| Uncertainty (if required): | | - | - | - | - | - | - | - | - | - | - |
| *Sample Identity according to customer | | | | | | | | | | | |
| This test is traceable to SI units and is following ISO/IEC 17025:2017. While measurement uncertainty is evaluated in accordance with ASTM standards. The coverage factor (k=2) so that the coverage probability is approximately 95%. | | | | | | | | | | | |

وزارة الطاقة والموارد المعدنية
مديرية المختبرات والجودة

XRF ANALYSIS



X-Ray Spectrometric Analysis Test Report



Test Report No. : 00086/03/2024-CH-001-045 Test Report Date : 12/03/2024


| Table 2: | | Test Results | | | | | | | | | | | | | | |
|----------------------------|-------------------|-----------------------|---------------------|---------|----------|----------|-----------------------|-------------------------------------|----------|----------|----------|-------------------------------------|--------|---------|------------------------------------|---------|
| Item | Sample Identity * | TiO ₂ Wt.% | SO ₃ Wt% | Cl Wt.% | BaO Wt.% | NiO Wt.% | SeO ₂ Wt.% | As ₂ O ₃ Wt.% | CuO Wt.% | ZnO Wt.% | CdO Wt.% | Cr ₂ O ₃ Wt.% | I Wt.% | Hg Wt.% | V ₂ O ₅ Wt.% | PbO Wt% |
| 1 | Zeolite | 2.29 | 0.16 | 0.035 | 0.034 | 0.030 | 0.001 | ND | 0.019 | 0.014 | ND | 0.041 | ND | ND | 0.023 | ND |
| Uncertainty (if required): | | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |


Notes:


- The results stated in this test report relates only to the tested sample.
- This test report is only valid with stamp and signature.
- The results stated in this test report shall not be reproduced except in full, without written approval of the lab.
- The Results were reported on dry basis.
- The laboratory does not apply the decision rule.
- Wt.% results In table 2 were done according to Standardless method (ND: Not Detected)

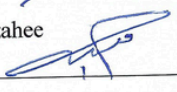
Opinions and Interpretations:
N/A.....
.....
.....

Additional Comments:
N/A.....
.....
.....

Analyzed by (Name and Signature): Eng. Feryal Yosef 

Technical Manager (Name and Signature): Chemist Hanady Al Sharif 

Division Head (Name and Signature): Eng. Nidal Tayyem 

Lab Manager (Name and Signature): Eng. Maysoon Alkhahee 

HEAVY METAL ANALYSIS



الجمعية العلمية الملكية
Royal Scientific Society

تقرير الفحص

مختبرات الفحص : مختبرات الكيمياء الآلية : التحليل العنقي :
 26420 / 18 / 01 / 17 : الرقم التمييزي للعينة :
 4469 : رقم تقرير الفحص :
 شركة الزيوليت الأخضر الزراعية
 الأردن - عمان - تلحاح العلي
 نوع العينة : 35144/1/55/164(170101) :
 طريقة تحضير العينة : 2018/10/16 :
 تاريخ الاستلام : 2018/10/07 :
 تاريخ انتهاء الفحص : 2018/10/07 :
 الدائرة :
 القسم :
 المختبر :
 المادة :
 العنوان :
 لا ينسخ التقرير بشكل موزع إلا بإذن
 موافقة خطية من الجهة
 المصدرة للشهادة :
 إشارتنا رقم :
 تاريخ :
 إشارتكم رقم :
 تاريخ :
 نتائج الفحص :
 تمثل العينة المفحوصة لقط
 أي كسب أو تعديل
 يلغى هذا التقرير
 Test Report is only valid With division-stamp and signature
 Test Report shall not be reproduced other than in full, except with the written approval of the issuing party
 The test result relate only to the items tested Any erasure or attrition in the report will invalidate it

| طريقة الفحص | الوحدة | النتيجة | نوع الفحص |
|------------------------------------|--------|----------------|----------------|
| ICARDA, 2013, Third Edition, 9.5.1 | mg/ Kg | Less than 36.4 | Ammonia as NH3 |
| SOP 17/01/01/02/09-Issue 2 | mg/kg | Less than 0.1 | نسبة الكاديوم |
| | mg/kg | Less than 0.1 | نسبة الفسفور |
| | mg/kg | Less than 0.1 | نسبة الزرنيخ |
| | mg/kg | Less than 0.1 | نسبة الزنك |

ملاحظات :
 - حالة العينة عند الاستلام جيدة.
 - أجريت التحاليل حسب طلبكم



اعتمدت من قبل رئيس القسم
 هيثم محمد نصر بتاريخ 09:30:55 2018/10/16

(Signature)

اعتمدت من قبل مسؤول المختبر
 ايمان عبدالوهاب طعان بتاريخ 09:25:34 2018/10/15

(Signature)

FORM NO. RSPMP1302 Issue (5) REV.(1)

يمكن التحقق من هذه الوثيقة خلال اسبوع من الموقع
 www.eflabs.rss.jo



صفحة 1 من 2
 ID:8891677808

COMPANY VALUES

Our dedicated Quality Department plays a pivotal role in upholding product excellence and ensuring compliance with rigorous standards and specifications. With the primary objective of meeting customer needs and expectations, the department focuses on delivering high-quality products. From meticulous packaging to proper storage and transportation, every step is managed to ensure that our products reach our valued customers in optimal condition.



We value long-term relationships with our business partners. Count on our team to provide consistent and professional support, ensuring your satisfaction and success.



Thank you!

In conclusion, we would like to express our heartfelt appreciation for your time and interest in our company's products and services. We are proud to be your partner on your journey towards quality and sustainability.

By adhering to the highest standards of quality and continuous innovation, we constantly strive to deliver unparalleled zeolite products that meet and exceed your expectations. Our vision also includes contributing to a more sustainable and efficient future in agriculture and industry.

We extend our gratitude to all our customers and partners who have supported and placed their trust in the quality of our products. We eagerly look forward to further collaboration and fruitful partnerships with you.

If you have any inquiries or interests, please do not hesitate to reach out to us. It would be our pleasure to assist you.

Warmest wishes and appreciation

 Jordan-Amman-Kilo Circle, Al-Madina Al-Munawwara street, Khalaf wa shtai Tower, Fifth Floor, Offices 501

 00962 7 7787 5903 /00962799123457

 www.greenzeolit.com

 Info@greenzeolit.com