DRIED ZEOLITE

NATURAL ZEOLITITE CHABASITE TYPE

COMPOSITION

ALUMINIUM – HYDRATED SILICATES OF ALKALI AND/OR ALKALINE-EARTH ELEMENTS, which structurally belong to the tectosilicates.
This is a natural volcanic material with a high and selective cationic exchange property.
Total zeolitic content: ca. 70% ± 5.
Heavy metals (mg/kg): Arsenic (As) 5 - Lead (Pb) 10 - Cadmium (Cd) 2 - Zinc (Zn) 20 - Copper < 0.1

IDEAL FOR:

- Neutralizing harmful elements, ammonium, heavy metals and organic molecules.
- Absorbing odorous gases, ammonia, hydrogen sulphide, mercaptans.
- Improving the exploitation of fertilizers thereby reducing the quantity to be used.
- The range of dried products is used to absorb and filter industrial oils, for general cleaning of surfaces, as a soft abrasive and as a component in pre-mixed materials in the building industry.
- To be used in addition to cultivation substrates or for soil conditioning.
- The construction and maintenance of sports grounds.
- Lightweight aggregate for mortar and cement-based mixes.

PHYSICAL AND CHEMICAL PROPERTIES

- Loss at fire 1050°C *(1922°F)*: 9.5-13.5%
- Relative humidity: approximately 10%
- Average humidity content at 105°C: 25–30%
- Selective Cation Exchange Capacity (C.E.C.): 200-220 mEq/100g
  C.E.C.: 200-220 mEq/0.22lb
- Reversible dehydration
- High specific surface area
- Water retention: approx 40% (w/w)
- Permeability
- Mineral containing no active limestone and no Free Crystalline Silica.

AVERAGE CHEMICAL ANALYSIS representative sample of the quarry	
SiO_2	48.5 - 56.5 %
Al_2O_3	15.0 - 19.0 %
K_2O	5.5 - 6.7 %
Fe_2O_3	3.0 - 4.0 %
CaO	5.0 - 6.4 %
Na_2O	0.4 - 0.8 %
TiO_2	0.4 - 0.6 %
MgO	1.8 - 2.3 %
MnO	0.2 %
P_2O_5	0.3 %
pH	7-8

FUNCTIONAL PROPERTIES

Natural volcanic material with technological properties which are the base of the consolidated and profitable use in:

- **Wastewater purification – phyto-purification**: the concentration of NH_4 in the waste water produced by biological activities, by the disposal of solid urban waste, by industrial activities and the content of pollutants in industrial waste water are drastically reduced by means of dynamic or static treatments with zeolites which have appropriate selective properties in relation to the polluting ion.
- **Agriculture**: by applying the zeolites to agricultural land and to substrates used for garden and flower cultivations in greenhouses results in a marked qualitative and quantitative improvement in production, a reduced use of synthetic fertilizers, irrigation water and pollution of the surface and deep hydrological system.

DRIED ZEOLITE AVAILABLE TYPES			
GRAIN SIZE		LOOSE BULK DENSITY Material at quarry humidity *	
0 - 800 µm	*20- US Mesh*	720 - 820 Kg/m³	45.0-51.2 lb/ft³
800 - 2000 µm	*10x20 US Mesh*	670 - 770 Kg/m³	41,8-48,1 lb/ft³
2000 - 5000 µm	*4x10 US Mesh*	630 - 730 Kg/m³	39,3-45,6lb/ft³

(1) The specific weight is indicative and refers to the average of industrial production batches. Any variations are due to potential 'demixing' between fine and coarse particles.

AVAILABLE IN BIG-BAGS AND IN BAGS

This mineral is a natural raw material. All data indicated above are average production values and do not provide any warranty.