

## ZEOLITE

### NATURAL ZEOLITITE CHABAZITE TYPE

#### COMPOSITION:

This is a natural volcanic material with a high and selective cationic exchange property.

Zeolite total content: ca. 58% (Chabasite 45÷53%; Phyllipsite 3÷6%; Analcime 3÷5%).

#### 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.
- Lightweight aggregate for mortar and cement-based mixes.
- To be used in addition to cultivation substrates or for soil conditioning.

#### PHYSICAL AND CHEMICAL PROPERTIES:

- Selective Cation Exchange Capacity (C.E.C.): approx. 170-200 milliequivalents/100g
- Reversible dehydration
- High structural crypto-porosity
- pH: 7-8
- Water retention
- Mechanical resistance
- Permeability
- Low density
- Mineral containing no active limestone and no Free Crystalline Silica (non-toxic product).
- Chemical composition: see the attached table

| AVERAGE CHEMICAL ANALYSIS              |         |
|--|---------|
| Of representative sample of the quarry |         |
| SiO <sub>2</sub>                       | 50,87 % |
| Al <sub>2</sub> O <sub>3</sub>         | 13,64 % |
| K <sub>2</sub> O                       | 6,49 %  |
| Fe <sub>2</sub> O <sub>3</sub>         | 4,11 %  |
| CaO                                    | 3,25 %  |
| Na <sub>2</sub> O                      | 0,6 %   |
| TiO <sub>2</sub>                       | 0,5 %   |
| MgO                                    | 1,26 %  |
| MnO                                    | 0,13 %  |
| P <sub>2</sub> O <sub>5</sub>          | 0,18 %  |
| 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<sub>4</sub> 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.

| AVAILABLE TYPES | PARTICLE SIZE DISTRIBUTION | LOOSE BULK DENSITY<br>Material at quarry humidity |
|-----------------|----------------------------|---|
| SAND            | 0 - 3 mm                   | 1.000 Kg/m <sup>3</sup>                           |
| GRIT            | 3 - 7 mm                   | 900 Kg/m <sup>3</sup>                             |
| GRIT            | 7 - 12 mm                  | 850 Kg/m <sup>3</sup>                             |
| GRIT            | 15 - 20 mm                 | 800 Kg/m <sup>3</sup>                             |

AVAILABLE UNPACKED, IN BAGS (BIG-BAGS) 1,5MC SIZE AND IN 33LT BAGS PACKED ON PALLETS (50 bags on each pallet)

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