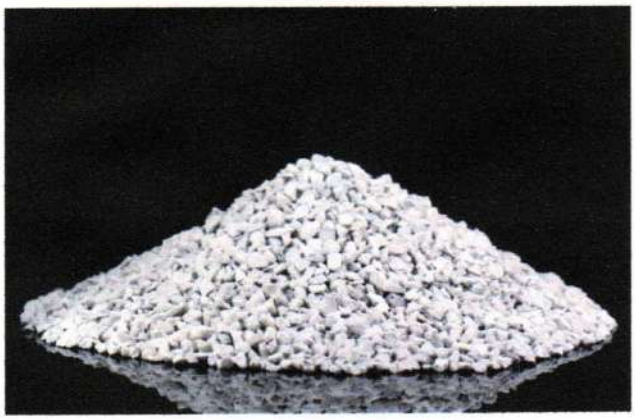
# CERTIFICATE OF ANALYSIS



## MINERAL COMPOSITION*

| | | | |
|---|---|---|---|
| **Zeolite** | 85 - 100 % | **Other Clays** | **0-5%** |

* Semi Quantitative whole rock analysis (bulk mineralogy) has been done using powder X-ray Diffraction Method

## CHEMICAL COMPOSITION*

| | | | | | |
|---|---|---|---|---|---|
| **SiO2** | 65 - 72 % | **FeO2** | 0.7 - 1.9 % | **MnO** | 0 - 0.08 % |
| **Al2O3** | 10 - 12 % | **MgO** | 0.9 - 1.2 % | **Cr2O3** | 0 - 0.01 % |
| **Cao** | 2.4 - 3.7 % | **Na2O** | 0.1-0.65 % | **P2O5** | 0 - 0.03 % |
| **K2O** | 2.3 - 3.8 % | **LOI*** ** | 9 -14 % | **SiO2/Al2O3** | 5.4 -7.2 % |

** *Analysed by XRF Spectrometer* ** *Loss of Ignition*

## PHYSICAL PROPERTIES

| | | | | | |
|---|---|---|---|---|---|
| **Appearance** | Ivory white | **Single Point Surface** | 39 m2/g | **Solubility** | None |
| **Smell** | None | **Micropore Area** | 11 m2/g | **Bulk Density** | 650-850 Kg/M3 |
| **Porosity** | 45-50% | **Mesopore Area** | 29 m2/g | **pH** | 7.0 – 8.0 |
| **Hardness** | 2 - 3 Mohs | **Effective Diameter of Pores** | 4 angstrom | **Mudding Down** | None |
| **Water Absorption** | 42 – 50% | | | | |

## CATION EXCHANGE CAPACITY (CEC)

**Total CEC:** 1.5 -1.9 meq/g

+ *Methylene Blue Chloride Method*

## HEAVY METAL ANALYSIS

| | |
|---|---|
| **Arsenic (As)** | < 30 mg/kg (ppm) |
| **Cadmium (Cd)** | <0.6 mg/kg (ppm) |
| **Lead (Pb)** | < 60 mg/kg (ppm) |
| **Mercury (Hg)** | <0.1 mg/kg (ppm) |

*++ICP-OES-determination after micr ovawe assisted acid digestion*

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