

Zeolite Technical Data Sheet

Material Name	Natural Zeolite				
Chemical Name	Hydrated aluminosilicate of alkaline metals				
Mineral form	Clinoptilolite				
Formula	$\text{Ca}_{1.8}\text{K}_{1.8}\text{Na}_{0.2}\text{Mg}_{0.2}\text{Al}_6\text{Si}_{30}\text{O}_{72.24} \text{H}_2\text{O}$ $(\text{Na}_{0.21}\text{K}_{1.74})(\text{Ca}_{1.71}\text{Mg}_{0.31})(\text{H}_2\text{O})_{18.28} [\text{Al}_{6.11}\text{Si}_{29.90}\text{O}_{72}]$				
CHEMICAL COMPOSITION					
SiO_2	66.30-71.30%	MgO	0.6-1.50%		
Al_2O_3	11.90-14.00%	Na_2O	0.20-1.30%		
CaO	2.70-5.20%	TiO_2	0.10-0.30%		
K_2O	2.20-3.80%	Si/Al	4.0-6.0%		
Fe_2O_3	0.80-1.90%				
MINERAL COMPOSITION					
Clinoptilolite	85%	Rutile	0.10-0.35%		
Clay	5%	Plagioclase	3-4%		
Cristobalite	9%				
ION EXCHANGEABILITY PROPERTIES					
Exchange	Ca^{2+}	0.65-1.0 mol/kg			
	K^+	0.25-0.55 mol/kg			
	Mg^2	0.07-0.20 mol/kg			
	Na^+	0.01-0.19 mol/kg			
Cation exchange capacity	1.23-1.55 mol/kg				
H_2O vapour sorbed by dehydrated rock Moisture of 98%	13.88-15.00 H_2O mmol/kg				

1. Industry waster water treatment.
2. Living wastewater purify water quality.
3. Removal of ammonia nitrogen of drinking water.
4. Succulent plants Pavement.
5. Aquaculture and Agriculture Industry feed additive.
6. Environmental Protection
7. Removing fluorine and improving the soil
8. Softening of hard water