

## TDS - Technical Data Sheet

### Production information

#### Grade: ZEO4

**1. General description:** The nano-structured silica of agriculture grade ZEO4 due to its suitable surface area and very fine particle size, show the high ability in combination with other needed compounds in the plant and can be considered as an essential chemical fertilizer for plants and strategic grains such as wheat, rice, soybean and .... This grade is synthetically produced amorphous silicon dioxide (SiO<sub>2</sub>).

**2. Application:** The nano-structure of silica grade ZEO4 can use in plants which has many advantages, such as supplying the needed silica for plants via its stem and leaf, increasing the strength of the stem of plants, helping to reduce pest damage in the plant and etc.

### 3. Specification

Properties	Units	Value
Specific surface area (BET)	m <sup>2</sup> /g	130-150
pH-value (in 5% dispersion in water)	Wt%	6-7
Loss on drying (2h @ 105°C)	Wt%	<5
Particle size agglomerates (D90) (FESEM)	micrometer	<10
Particle size (TEM)	nanometer	15-30
SiO <sub>2</sub> content (based on heated at 1000°C for 2 h)	Wt%	>99
DBP absorption	g/100g	150-200
Tamped density	g/L	150-180
Appearance	Fine, White, Amorphous Powder	
Packaging	10 Kg- 15 Kg	
Storage time & place	2 years & closed and dry environment	