

TDS - Technical Data Sheet

Production information

Grade: ZEO1

1. General description: The nano-structure of silica grade ZEO1 can use as a white controller of rheology and anti-wrinkle and punishment in the paint and coating industry. This grade is synthetically produced amorphous silicon dioxide (SiO₂).

2. Application: The nano-structure of silica grade ZEO1 can be a good alternative to Benton in industrial colors due to better distribution. The nano-structure of silica grade Z1 can replace Fumed silica or Aerosil with a ratio of 1 to 1/3 times in industrial colors, and despite a maximum of 30% higher consumption, with the same properties, it will create a high economic benefit for the consumer.

3. Specification

Properties	Units	Value
Specific surface area (BET)	m ² /g	150-180
pH-value (in 5% dispersion in water)	Wt%	6-7
Loss on drying (2h @ 105°C)	Wt%	<5
Particle size agglomerates (D90) (FESEM)	micrometer	<7
Particle size (TEM)	nanometer	15-25
SiO ₂ content (based on heated at 1000°C for 2 h)	Wt%	>99
DBP absorption	g/100g	220-250
Tamped density	g/L	120-130
Appearance	Fine, White, Amorphous Powder	
Packaging	10 Kg- 15 Kg	
Storage time & place	2 years & closed and dry environment	

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Production information

Grade: ZEO1MATT

1. General description: The nano-structure of silica grade ZEO1MATT can use as a matting agent in the paint industry. This grade is synthetically produced amorphous silicon dioxide (SiO₂) with high pore volume with and without treatment.

2. Application: The nano-structure of silica grade ZEO1MATT can reduce the gloss of a variety of products including coatings, paints, lacquers, varnishes and inks, while providing lower viscosity and better stir in capability. Also, this grade is covering a wide range of particle sizes, grind values and surface areas have been designed to lower manufacturing costs. ZEO1MATT especially used for wood paint, metal surface, leather, high end furniture and decorative plates.

3. Specification

Properties	Units	Value
Specific surface area (BET)	m ² /g	200-300
pH-value (in 5% dispersion in water)	Wt%	6-8
Loss on drying (2h @ 105°C)	Wt%	<5
Particle size agglomerates (D90) (FESEM)	micrometer	15-25
Particle size (TEM)	nanometer	15-25
SiO ₂ content (based on heated at 1000°C for 2 h)	Wt%	>98
LOI (at 2h in 1000°C)	Wt%	<7
Tamped density	g/L	120-130
Appearance	Fine, White, Amorphous Powder	
Packaging	10 Kg- 15 Kg	
Storage time & place	2 years & closed and dry environment	