

TDS - Technical Data Sheet

Production information

Grade: ZEO2

1. General description: The nano-structure of silica grade ZEO2 can be used as a reinforcement in the rubber and tire industry due to its high specific surface area and the amount of oil absorption and proper granulation. This grade is used as a physical connector of polymer chains based on its porous structure and increases the mechanical properties of the final product. This grade is synthetically produced amorphous silicon dioxide (SiO₂).

2. Application: The nano-structure of silica grade ZEO2 includes pores in its structure which it leads to enhance the mechanical properties of rubber and tires. This product can be supplied in the form of powder and granules for polymer industries, especially rubber and tires.

3. Specification

Properties	Units	Value
Specific surface area (BET)	m ² /g	150-200
pH-value (in 5% dispersion in water)	Wt%	5-8
Loss on drying (2h @ 105°C)	Wt%	<5
Particle size agglomerates (D90) (FESEM)	micrometer	<10
Particle size (TEM)	nanometer	15-20
SiO ₂ content (based on heated at 1000°C, 2 h)	Wt%	>99
Electrical conductivity	μs	1000-1500
DBP absorption	g/100g	250-300
Tamped density	g/L	150-200
Appearance	Fine, White, Amorphous powder and granulate	
Packaging	10 Kg	
Storage time & place	2 years & closed and dry environment	