JINHUA ZINC TECHNOLOGY (THAILAND) CO., LTD.

Zinc Oxide Introduction

1. Product Features

The indirect zinc oxide white powder produced by our factory is widely used in rubber, medicine, chemical industry, light industry, electronics and other industries. The specific uses are as follows:



- In rubber manufacturing, zinc oxide is not only an indispensable additive in rubber and tire industry, but also one of the raw materials for rubber
 - manufacturing. In addition to vulcanization, zinc oxide can greatly improve the heat conductivity of rubber, which is helpful to the heat dissipation of tire and ensure the safety of driving. The addition of zinc oxide also prevents the erosion of rubber by mold or ultraviolet light, and makes the rubber surface smooth;
- In the coating industry, zinc oxide not only has the characteristics of coloring power and covering power, but also preservatives and luminous agents in coatings;
- In medicine and food industry, zinc oxide has the function of deodorization and antibacterial, so it is often added to cotton fabric, rubber, food packaging and so on. Zinc oxide added to food not only has a certain preservative effect, but also can be used as a zinc source to supplement the necessary zinc elements for the human body.
- In the ceramic industry, zinc oxide is used as flux; in the glass industry, zinc oxide can reduce the sintering temperature of glass, shield potentially harmful ultraviolet light, and make glass products have self-cleaning properties;
- In the electronic industry, zinc oxide is not only the main raw material of varistor, but also the main additive of magnetic, optical and other materials.

2. Product Specification (GB/T3185)

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	Index					
Items	BA01-05(Type I)			BA01-05(Type II)		
	Top grade	First grade	Qualified grade	Top grade	First grade	Qualified grade
Zinc Oxide, % ≥	99.7	99.5	99.4	99.7	99.5	99.4
Metal Content(as Zn), %≤	Nil	Nil	0.008	Nil	Nil	0.008
Lead Oxide(as Pb), %≤	0.037	0.05	0.14	П		_
Manganese oxide(as Mn), %≤	0.0001	0.0001	0.0003	_	_	_
Cooper(as Cu), %≤	0.0002	0.0004	0.0007	_	_	_
Hydrochloric Acid Liquor , %,≤	0.006	0.008	0.05	I	I	_
Loss on Ignition at 825°C, %, ≤	0.2	0.2	0.2	I	ı	_
Residue on 325 Mesh(45 μ), %, \leq	0.10	0.15	0.20	0.10	0.15	0.20
Water Soluble Matter, %, ≤	0.10	0.10	0.15	0.10	0.10	0.15
Loss at 105°C $, \%, \le$	0.3	0.4	0.5	0.3	0.4	0.5

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Granular Zinc Oxide Introduction

1, Product Features

Granular zinc oxide is made by dry granulation of high-purity indirect zinc oxide. Under storage conditions, the particles of this product will not agglomerate, and it is easy to mix with ingredients, with good fluidity. There is no dust flying during the feeding process, which will not cause feeding



loss, and improve the stability and consistency of the rubber batch.

2. Product Specification

Inspection items	Standard value
Color	white
Zinc Oxide Content % >	99.50
Lead Oxide Content % ≤	0.03
Cadmium Oxide Content % ≤	0.002
Heat Loss % ≤	0.3
Lgnition Loss % ≤	0.6
Insoluble content in HCL % ≤	0.1
N2SA $m^2/g \geqslant$	4
pellet hardness (average) g \approx	18
pellet hardness (average) g ≤	24

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S-80 Introduction

1. Product Features:

S-80 is a pre-dispersed rubber curing agent, which can obviously enhance the dispersion in rubber, make the quality of products uniform, improve the surface quality,



reduce mixing time, energy consumption, dust pollution,

and also decrease the harm to the environment and health. The specific characteristics are as follows:

- No dust, improved environment and work hygiene, reduce damage to the body (especially the eyes, skin).
- Solve the phenomenon of powdered sulfur hardening, make the particles fine and uniform, reduce the product defects and the waste rate of the product.
- Mooney viscosity is reduced, dispersion is improved, mixing time is shortened,
 efficiency is improved, and cost is reduced.
 - The compatibility of elastic carrier with various rubber is good.

Storage: store sealed in a cool, dry and well-ventilated place.

Packing: carton packing, net weight 25kg.

2. Production Standard (Enterprise Standard QJHYFS1002-2008)

Inspection items	Standard value	
Appearance(visual inspection)	Light yellow granular	
Specific weight	1.51±0.04	
Mooney	30±15	

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ZnO-80 Introduction

1. Product Features:

ZnO-80 is made of high-purity and ultra fine environmental ZnO. After antistatic treatment, it is made by mixing polymer and dispersant. The cementitious body can protect zinc oxide from soaking in water in the



atmosphere. The master rubber has been pre-dispersed, so the surface of the product pressed from the rubber becomes smoother, and the product can also obtain higher modulus and tensile strength.

In general, it is difficult to disperse powder ZnO uniformly at processing temperature, resulting in decreased vulcanization activity, static mechanical properties and dynamic fatigue properties of vulcanized glue. However, due to the selection and control of particle size, carrier EPDM and surfactant dispersant are used for pre-dispersion of ZnO-80, which can be quickly mixed and evenly dispersed during the mixing of various rubber compounds, ensuring the best activity of effective components. In addition, the pre-dispersed ZnO-80 is granular, which will not agglomerate under storage conditions and is easy to mix; Secondly, it has good fluidity and no dust flying, so it will not cause feeding loss; Finally, it can improve the stability and uniformity of the rubber batch. The pre-dispersed ZnO-80 also avoids the thermal expansion that often occurs in CR compound when powdered zinc oxide is used. It is suggested that the Zno-80 can be added at the end of mixing.

Storage: store sealed in a cool, dry and well-ventilated place.

Packing: carton packing, net weight 25kg.

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2.Production Standard (Enterprise Standard Q/JHYFS1001-2008)

Items	Index 1	Index 2
Appearance	White granular	White granular
Density g/cm ³	2.80~3.10	2.45~2.85
Ash %	83.0±2.0	82.0±1.0

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CaO-80 Introduction

1. Product Features:

CaO-80 is a pre-dispersed strong rubber dehumidifier, made of high-purity ultra-fine calcium oxide powder, combined with polymer elastomer and dispersant.



CaO-80 is a granular object that will not agglomerate under storage conditions. In addition, it is not easy to absorb moisture and deteriorate, and is easy to weigh. This product has the following advantages: firstly, the product uses elastic carrier, which has good fluidity and is easy to disperse, so the moisture absorption efficiency is higher; Secondly, the product has good compatibility with various rubbers and is easy to mix, so it can be quickly mixed in the rubber compound; Finally, the product has no dust flying and will not cause feeding loss, so it can improve the working environment and reduce the harm to the body (especially skin).

Storage: store sealed in a cool and dry place.

Packing: carton packing, net weight 20kg.

2. Production Standard (Enterprise Standard Q/JHYFS1003-2010)

Inspection items	Standard value		
Appearance	Grayish white granular		
Specific weight (g/cm³) ≤	2.2		
Ash%	75.0-82.0		