

SPECIFICATION

Product Name: Zinc Oxide Rubber Grade
Chemical Formula: ZnO
CAS Number: 1314-13-2
Molecular Weight: 81.38 g/mol
Appearance: White powder
Odor: Odorless

Chemical Composition

Parameter	Unit	Typical Value
Zinc oxide content	%	Min. 99.00%
Volatile loss	%	Max. 0.20%
Loss on ignition	%	Max. 0.35%
Lead content as pb	PPM	Max. 1000 PPM
Cadmium content	PPM	Max. 250 PPM
Copper content	PPM	Max. 20 PPM
Manganese	PPM	Max. 20 PPM
Residue on 325 mesh	%	Max. 0.10%

Physical Properties

- Solubility: Insoluble in water. Insoluble in ethanol. Insoluble in acetone. Insoluble in ether.
Soluble in alkalis. Soluble in dilute acids.

Shelf Life & Storage

- Shelf Life: 2 years from date of manufacture under recommended storage.

- Storage Conditions: Store in a cool, dry, and well-ventilated place at 15–30°C. Protect from moisture, excessive humidity, direct sunlight, and contamination. Keep the container tightly closed in the original, properly labeled packaging to prevent moisture absorption and contamination. Store away from strong acids, strong alkalis, and incompatible materials. Proper storage helps maintain the product's purity, free-flowing characteristics, particle size, dispersion properties, and stability for rubber manufacturing applications.

Applications

- Use: Widely used as a vulcanization activator, reinforcing agent, heat stabilizer, UV stabilizer, and white pigment in the rubber industry. It is commonly incorporated into the manufacture of automobile tires, inner tubes, conveyor belts, rubber hoses, footwear, seals, gaskets, cables, rubber rollers, and molded rubber goods. Zinc Oxide enhances the curing efficiency, tensile strength, abrasion resistance, tear resistance, heat resistance, aging resistance, and weatherability of rubber compounds. It also improves dispersion, processing performance, and durability, making it an essential ingredient in both natural and synthetic rubber formulations.

- Dosage: Zinc Oxide Rubber Grade does not have a therapeutic or food dosage, as it is intended only for industrial rubber manufacturing. The amount used depends on the rubber compound, curing system, and the required physical properties of the finished product.

Packaging

- Standard Packing: 25 Kgs woven pp bag with inner liner or as per customer requirement.

- Labeling: Product name, batch number, net weight, manufacture date, expiry date, and manufacturer details.

* Specifications are based on the manufacturer's provided specifications.