

Product Overview: High-Purity Zinc Cut Wire Shot manufactured from special high-grade pure zinc wire (99.99%). Engineered for gentle deburring, deflashing, paint stripping, and sacrificial galvanic film deposition on non-ferrous die-cast components.

~7.14 g/cm³

HIGH DENSITY

≥ 99.99%

ZINC PURITY

35–120 HV

SOFT HARDNESS

≤ 1.3 μm

GALVANIC LAYER

Physical & Mechanical Properties

PARAMETER	STANDARD SPECIFICATION	REMARKS / TEST STANDARD
Material Base	Special High Grade Pure Zinc Wire (99.99%)	Solid, non-magnetic, zero porosity
Microstructure	Uniform Cold-Drawn Fibrous Structure	Ensures high fatigue resistance
Density	≈ 7.14 g/cm ³	High mass gives strong impact energy
Bulk Density	3.8 kg/dm ³ to 4.2 kg/dm ³	Ideal for tumbling & heavy blast cycles
Micro-Hardness (As Cut)	35 HV to 60 HV	Extremely gentle on soft die castings
Hardness (Conditioned)	60 HV to 120 HV	Slight work-hardening during operation
Tensile Strength	90 MPa to 120 MPa	Prevents fracturing and airborne dust
Melting Point	419.5 °C	Pure zinc thermal equilibrium threshold

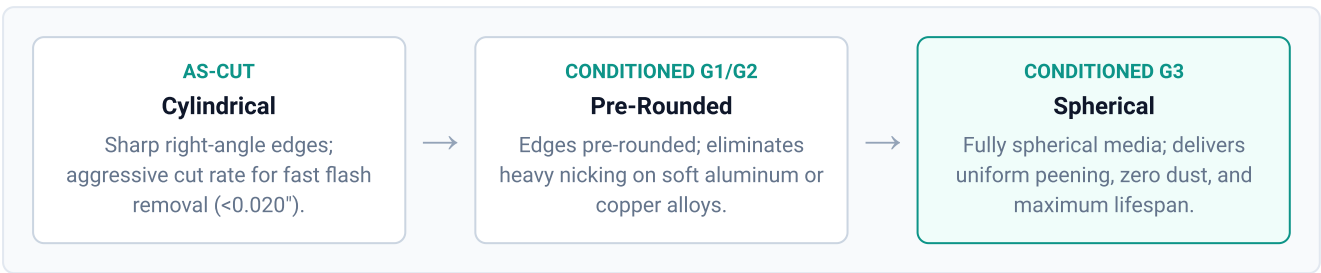
Chemical Composition Analysis (%)

CHEMICAL ELEMENT	HIGH-PURITY GRADE SPEC	MAXIMUM LIMIT
Zinc (Zn)	≥ 99.99%	Balance
Iron (Fe)	≤ 0.005%	Prevents rust spot initiation
Lead (Pb)	≤ 0.005%	Strictly controlled impurity
Cadmium (Cd)	≤ 0.005%	Strictly controlled impurity
Tin (Sn)	≤ 0.001%	Trace level restriction

■ Dimensional Grading & Conversion Matrix

STANDARD SIZE	NOMINAL DIA. (MM)	CAST SHOT EQUIV.	PRIMARY INDUSTRIAL APPLICATION
ZC-030	0.30 mm – 0.40 mm	S-70	Precision electronic parts & delicate flash removal
ZC-060	0.60 mm – 0.70 mm	S-170 / S-190	Light aluminum die castings & engine parts
ZC-080	0.80 mm – 1.00 mm	S-230 / S-280	General deflashing, paint stripping & tooling
ZC-120	1.20 mm – 1.60 mm	S-330 / S-390	Heavy sand removal & zinc die casting deburring
ZC-200	2.00 mm – 2.50 mm	S-550 / S-660	Heavy structural castings & thick flash removal

■ Media Conditioning Profiles



■ Key Operational Advantages

1. Sacrificial Galvanic Protection Transfers a thin sub-micron zinc film ($\leq 1.3 \mu\text{m}$) onto blasted parts during impact, providing temporary corrosion protection against rust.	2. Substrate Integrity Low hardness (35 HV to 60 HV) prevents dimensional changes, pitting, or surface damage on critical soft alloy casting features.
3. Minimal Machine Wear Soft, ductile nature reduces abrasive erosion on blast turbine wheel blades, impellers, and machine housing liners by up to 80% versus steel media.	4. Low Dust & High Reusability Solid drawn wire construction prevents fracturing into fine dust, improving visibility inside blast chambers and lowering operating media consumption.

■ Standard Packaging Configurations

Standard Bagging 25 kg Multi-wall moisture-proof paper / PE sealed bags.	Bulk Packaging 500 kg to 1,000 kg heavy-duty HDPE Jumbo bags or reinforced steel drums.
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