

Product Overview: High-Purity Aluminium Cut Wire Shot manufactured from high-grade drawn wire. Designed specifically for blast cleaning, deburring, surface conditioning, and shot peening of non-ferrous castings and forgings without iron contamination.

~2.7 g/cm³

PARTICLE DENSITY

100% Solid

ZERO POROSITY

40–160 HV

HARDNESS RANGE

3x–5x

LIFE VS CAST ABRASIVES

Physical & Mechanical Properties

PARAMETER	STANDARD SPECIFICATION	REMARKS / TEST STANDARD
Material Base	High-Purity Aluminium Wire (Grade 1070 / 4043 / 5019 / 5356)	Non-ferrous, zero porosity structure
Microstructure	Deformed α -structure	High fatigue durability under impact
Density	$\approx 2.7 \text{ g/cm}^3$	Reduces energy consumption in wheel units
Bulk Density	$1.5 \text{ kg/dm}^3 \text{ to } 1.7 \text{ kg/dm}^3$	Optimal media flow and recirculation
Micro-Hardness (As Cut)	40 HV to 120 HV (Grade Dependent)	Gentle on non-ferrous substrate surface
Hardness (Operating Mix)	130 HV to 160 HV	Work-hardens naturally during blasting cycles
Tensile Strength	80 MPa to 240 MPa	Resists premature shattering & dust formation

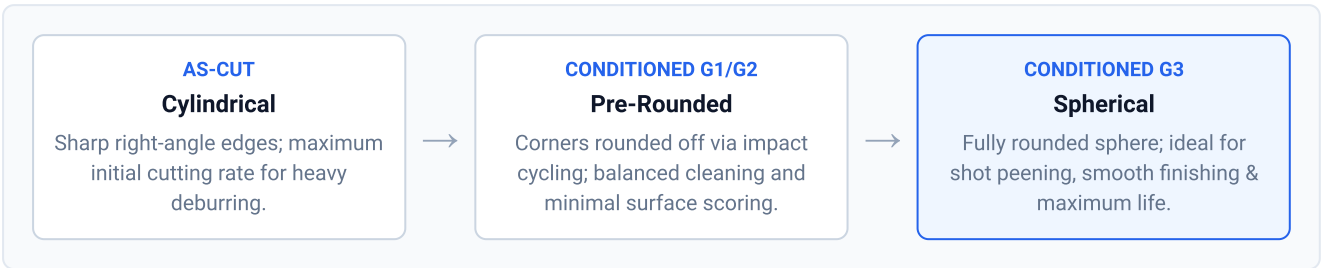
Chemical Composition Analysis

CHEMICAL ELEMENT	HIGH PURITY GRADE (PURE AL)	ALLOY GRADE (EN AW-5019 / ALMG5)
Aluminium (Al)	$\geq 99.00\%$	Balance ($\sim 94.0 - 95.0\%$)
Silicon (Si)	$\leq 0.50\%$	$\leq 0.20\%$
Iron (Fe)	$\leq 0.50\%$	$\leq 0.35\%$
Magnesium (Mg)	$\leq 0.10\%$	4.50% - 5.50%
Manganese (Mn)	$\leq 0.05\%$	0.20% - 0.50%
Copper / Zinc (Cu/Zn)	$\leq 0.10\%$ each	Traces ($\leq 0.10\%$)

■ Dimensional Grading & Conversion Matrix

STANDARD SIZE	NOMINAL DIA. (MM)	CAST SHOT EQUIV.	PRIMARY APPLICATION
AG-170	0.40 mm – 0.50 mm	S-110	Fine deburring & delicate precision components
AG-190	0.60 mm	S-190	Small die castings & heat sinks
AG-230	0.80 mm	S-280	Automotive engine housings & cleaning
AG-390	1.00 mm – 1.20 mm	S-390	Heavy die-cast parting lines & sand removal
AG-550	1.40 mm – 1.60 mm	S-550	Heavy forged parts & structural flash removal
AG-660	2.00 mm – 2.50 mm	Custom Heavy	Structural peening & large non-ferrous castings

■ Media Conditioning States



■ Key Operational Advantages

1. Zero Ferrous Contamination

Prevents embedding of iron particles into aluminum substrates, eliminating subsequent surface corrosion or flash rust prior to painting, anodizing, or powder coating.

2. Superior Durability

Solid wire structure without internal blowholes or porosity results in 3x to 5x higher durability compared to cast abrasives, significantly lowering overall media consumption.

3. Reduced Equipment Wear

Lower mass density ($\approx 2.7 \text{ g/cm}^3$) minimizes abrasive wear and tear on blast wheel blades, liners, and cabinet housings, reducing maintenance overhead.

4. Bright Satin Surface Finish

Produces a highly consistent, clean, and bright satin finish on die castings without creating heavy dust clouds during recycling and operating cycles.

■ Standard Packaging Configurations

Standard Bags

25 kg Multi-wall paper / PE moisture-proof sealed bags.

Bulk / Jumbo Packaging

1,000 kg HDPE Big Bags on reinforced wooden pallets or steel drums.