
95A ESD Aluminum Core Polyurethane Wheel

Title	95A ESD Aluminum Core Polyurethane Wheel
Thumb	
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Description

In the world of semiconductor manufacturing and automated transport, the demands for stability, cleanliness, and precision are uncompromising. Engineered specifically for high-frequency, high-load, and high-precision semiconductor environments, our 95A Polyurethane on Aluminum Wheels delivers world-class physical properties, breaking the monopoly with superior concentricity and vibration control.



Core Technical Specifications

Feature	Specification	Advantage
Durometer	95A Shore A	High load-bearing capacity; minimal deformation under long-term pressure.
Core Material	A5056 Aluminum Alloy	High strength-to-weight ratio with excellent corrosion resistance.
Surface Treatment	Anodic Oxidation	Increases core hardness and enhances bonding strength with the coating.
ESD Rating	10^8 Omega	Stable static dissipation to protect sensitive semiconductor components.
Manufacturing	Precision Casting and CNC Grinding	Ensures ultra-high concentricity for silky-smooth, vibration-free

Feature	Specification	Advantage
		operation.

Why Choose Our Solution?

1. Superior Material Science: High Tensile & Low Wear

Utilizing a modified polyurethane elastomer, our wheels boast tensile strength and tear resistance that outperform standard materials. Even under 24/7 continuous operation in cleanrooms, the low abrasion rate ensures a long service life and significantly reduced maintenance costs.

2. Permanent Anti-Static Performance

Unlike products that rely on surface coatings, our anti-static agents are integrated directly into the molecular chain. The resistance remains stable at 10^8 ohms, ensuring that wear and tear do not compromise the wheel's ability to prevent ESD damage to wafers or precision circuits.

3. A5056 Core with Anodic Oxidation

The wheel hub is crafted from premium A5056 aluminum. The anodic oxidation process creates a dense protective layer that prevents corrosion and drastically improves the chemical bond between the aluminum and the polyurethane, virtually eliminating the risk of de-bonding.

4. Precision Concentricity for Zero Vibration

Each wheel undergoes secondary CNC precision grinding to maintain concentricity within micro-tolerances.

Minimal Vibration: Prevents interference with sensors on AGVs (Automated Guided Vehicles).

Low Noise: Contributes to a quieter working environment in Class 100/1000 cleanrooms.

By combining "48-hour curing and secondary CNC precision grinding," we ensure stable 10^8 ohms ESD performance while eliminating industry pain points like de-bonding and high run-out in high-hardness wheels.

Applications

Semiconductor Assembly & Testing: Wafer handling robots and automated conveyor lines.

Precision Electronics: High-end SMT lines and flexible circuit board transport.

Medical & Laboratory: Supporting high-precision instruments sensitive to vibration and static.

Conclusion: The New Standard for Localization

We understand the semiconductor industry's pursuit of "Zero Defects." This 95A ESD Aluminum Core Wheel provides a cost-effective, short-lead-time, and high-performance alternative to Japanese and Korean imports.

Stop paying the "Import Premium." Our wheels have been field-tested in leading semiconductor facilities with outstanding results. Contact us today for custom specifications !