



KEYSTONE CAPSULES

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Who We Are – Keystone Capsules

- Only manufacturer of tin capsules in North America, based in Coatesville, PA
 - Production starting Summer 2022
- Stock and Custom options
- Only manufacturer with an in-house recycling program in N. America
- Internal sustainability efforts
 - Packaging
 - Water-Based inks
 - Reduction in carbon footprint
 - US EPA restrictions
 - Production, shipping, etc.
- Proud sponsor of Napa Green



Our Roots

Nathan Trotter

- Parent company established in 1789, NT has grown to become the largest tin supplier in N.A.
- Producing 7,500 tons/ yr (25% of all North America)

Industries Served

- Automotive, Electronics, Aerospace, Chemical, Electroplating

Raw Materials

- Established Global Suppliers (Malaysia, Indonesia, Peru, Bolivia, Brazil) – Utilizing conflict-free mines



Tin Technology and Refining

- Est. 2013 to address void in domestic industrial tin scrap demand and leverage Nathan Trotter customer base.
- Sustainably-focused 40,000 sq ft dedicated tin recycling facility located in West Chester, PA processing over 4 million lbs of tin per year.
- Recycling capabilities include smelting, refining, and alloying- Certified "Conflict-Free" by Responsible Mineral Initiative.
- Our facility is fully DEP (Department of Environmental Protection) permitted and registered with the EPA.



Capsules and Closures – Why Tin

PVC

- Plastic, heat shrink – not recyclable

Polylaminate

- Aluminum with polyethylene – not recyclable

Screw Caps

- Aluminum with liner inserts – recyclable with exceptions

Aluminum Capsule

- Fully recyclable

Tin Capsule

- Fully recyclable – highest value
- “When each tin capsule weighs approximately of an aluminum can and is worth 14x the value recycling it makes more than just cents. It makes sense.”



Recycling

Tin Capsules

- Sweat furnaces used for initial metal recovery
 - Sprayed inks are vaporized and consumed in filters (steam)
- Rotary furnace for smelting and reducing oxides and drosses (waste)
- Refining kettles give us the ability to extract any trace levels of contaminants that remain
- In the plant we utilize a Niton XRF analyzer for quick identification and quality control. Further lab work includes testing purity of the recovered material with spectrometer.
- Recovery results are presented in a settlement report. Total recovery is about 90% - 95%



Recycling – How To

- Used or unused tin capsules
 - Tasting room, events, discontinued designs/ colors, improper size
- Collect – Arrange Transportation – Reclaim and Refine
 - A settlement form containing tin recoveries and value is returned to the supplier along with subsequent payment. Average reimbursement \$8 - \$12/lb.
- Teacher's Resource Center
 - Non-Profit Organization
 - Collects directly from tasting rooms with 5 gallon buckets





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Questions