Excellence

is more than a word... it's our passion

With roots in the world of metal stretching back over 75 years, AIM has evolved from humble beginnings into an international leader in the development, manufacture and application of electronics assembly materials.

Our mission is to offer the most innovative and reliable product solutions available to the electronics industry. At the same time, AIM is keenly focused on the need for customer support at every stage of the professional relationship. In fact, we consider our commitment to providing top-notch technical service to be just as important as our goal of producing market-leading materials.

The key to being a market leader in any industry today rests on the ability to provide customers with unmatched quality, consistency and value throughout the entire process, with products and services delivered locally, and yet still inspired by a global, environmentally-focused view.

We believe that our focus on creating excellence every step of the way is what sets AIM apart, and allows us to meet those challenges. We thank you for the confidence and trust that you have placed in us, and we look forward to continue working closely with you to help you achieve your goals.

Yours truly,

Rick Black President, AIM



Solder <u>plus</u> Support

AIM's Complete Line of Advanced Solder Products

- Solder paste
- Liquid flux
- Cored and solid wire
- Bar solder
- Cleaners
- Epoxies and adhesives
- Underfills
- Preforms
- Specialty alloys, such as indium and gold



AIM's Focus on Technology

AIM understands the importance of an aggressive R&D program that provides solutions to a rapidly evolving market.

AIM's team of technology experts consists of Process Engineers, Technical Service Engineers, Metallurgists and Chemists.

Continuous laboratory upgrades and ongoing research and development enables AIM to develop innovative solutions for the manufacturing challenges of tomorrow.

Unparalleled Global Technical Support

AIM's global technical resources are available to customers remotely as well as through onsite support and training seminars.

Applications laboratories are used to replicate unique production conditions for product development and optimization, technical support and training purposes.

No matter the location, AIM's exceptional technical support team is available around-the-clock to assist our customers in reaching their manufacturing goals.





Always Consistent Quality

To ensure a dependable manufacturing network, AIM's corporate standards of equipment, manufacturing processes, environmental controls, and quality systems are replicated at each manufacturing facility around the world.

This assures AIM customers that they are receiving products made of consistent quality, no matter where in the world they are located.

AIM's manufacturing facilities are ISO 9001:2008 and ISO 14001:2004 certified.

Solder Paste, Liquid Flux, Paste Flux

Solid and Cored Wire Solder



AIM's **Solder Pastes** are available in a variety of alloys, particle sizes, metal contents and viscosities designed to suit all SMT applications. AIM solder pastes are produced from the highest guality, oxide-free powder manufactured to the Electropure™ specification. Solder pastes are manufactured in no clean, water soluble and rosin based chemistries. These are each available in all industry standard packaging.

AT A GLANCE **AIM Solder Pastes**

- Lead-Free and Tin/Lead Compatible
- Halogen- and Halide-Free
- Excellent Wetting
- No Head-in-Pillow
- Low Tombstoning
- Clear Pin-Probe Testable Residue
- Extended Stencil Life and Tack Time
- Eliminates Voiding
- Low Solder Beading
- Printing and Dispensing Formulas







AIM's Liquid Fluxes and Paste Fluxes are available in a variety of formulations and packaging. The no clean, water soluble and rosin based chemistries of AIM's fluxes offer a broad range of benefits proven to perform well in a variety of applications.

AT A GLANCE AIM Liquid Fluxes

- For Wave, Selective and Rework Soldering
- Halogen- and Halide-Free Formulas
- Can Be Foamed, Sprayed, Dipped or Brushed
- Available in VOC-Free and Alcohol Based
- Lead-Free and Tin/Lead Compatible

AT A GLANCE AIM Paste Fluxes

- Excellent Wetting
- Can Be Brushed, Dispensed, Pin Transferred or Stencil Printed
- Lead-Free and Tin/Lead Compatible

AIM's **Solid and Cored Wire Solders** are available in a variety of alloys, diameters, flux core percentages and spool sizes designed to suit all soldering applications. AIM cored wire solders are produced in a proprietary method that guarantees a void-free flux core. These cored wires are available in no clean, water soluble and rosin based chemistries.

COMMON CORED WIRE SOLDER DIAMETERS							
Inch	.010	.015	.020	.025	.032		
MM	.25	.40	.50	.63	.80		
Inch	.040	.050	.062	.093	.125		
MM	1.0	1.25	1.57	2.35	3.17		



AT A GLANCE **AIM Wire Solders**

- Solid and Cored Wire Available
- Lead-Free and Tin/Lead Compatible
- Excellent Wetting and Solderability
- Good Thermal Transfer



AlM's high purity and low drossing Electropure" **Bar Solder** is processed from virgin metals in a proprietary method that removes contaminants and reduces dissolved oxides to a minimum. The result of this is an extremely pure, low drossing solder bar that increases throughput and decreases defects.

AT A GLANCE AIM Bar Solder

- Produced from High Purity Virgin Metals
- Low Oxide Content
- Low Dross Rate
- Reduces Defects Such as Bridging and Icicling
- Excellent Joint Strength and Aesthetics
- Fast Barrel Fill and Excellent Wetting

- Lower Surface Tension than Competitive Brands
- Available in Extruded, Cast, and Margash Bars
- Compatible with All Flux Types
- Available in All Alloys, Including Tin/Lead and Lead-Free



Dross Comparison of AIM Electropure[™] and Competitive Sn63/Pb37 Bar Solders

500 pounds of each type of solder was heated in a wave solder pot at 500°F for 6 hours. The pot was de-drossed every 3 hours. After 6 hours the amount of dross generated from each type of solder was weighed. AIM's bar solder has proven to reduce drossing as compared to competitive brands.

Alloys

AIM offers a broad range of alloys for SMT, wave soldering, hand soldering, and various applications. See the chart below for a listing of common alloys used in the electronics industry. Other alloys are available upon request.

			SOLDER FORM AVAILABILITY					
ALLOY	MELTING POINT °C	COMMENT	SOLDER PASTE	BAR SOLDER	CORED WIRE	SOLID WIRE	SOLDER PREFORMS	SOLDER SPHERES
Sn42/Bi58	138	Alloy for low temperature applications. Attention should be paid to potential embrittlement issues and poor thermal fatigue properties.	•	•		•	•	٠
Sn42/Bi57/Ag1	138	Similar characteristics to Sn42/Bi58, with improved fatigue characteristics.	•	•		•	•	٠
Sn63/Pb37	183	Standard electronic assembly alloy prior to RoHS.	•	•	•	•	•	٠
CASTIN® Sn/Ag2.5/Cu0.8/Sb0.5	217	The lowest melting point and least expensive of the tin-silver- copper family of alloys. Proven reliability and compatibility with current parts and processes.	•	•	•	•	•	•
SAC305 Sn/Ag3/Cu0.5	217-218	Tin-silver-copper alloy in line with JEIDA recommendation.	•	•	•	•	•	٠
SAC387 Sn/Ag3.8/Cu0.7	217-218	Alternative tin-silver-copper alloy. Similar characteristics as SAC305 with slightly higher cost of metals.	•	•	•	•	•	•
SAC405 Sn/Ag4/Cu0.5	217-218	High-silver tin-silver-copper alloy. Similar characteristics as SAC305 with higher cost of metals.	•	•	•	•	•	•
SAC-B 0307 Sn/Ag0.3/Cu0.7	217-227	Low cost Sn-Ag-Cu alloy. Far superior fluidity as compared to other alloys and makes of bar, resulting in excellent flow when used in wave soldering.	•	•	•	•	•	٠
SAC-B 0107 Sn/Ag0.1/Cu0.7	217-228	Lowest available silver version of the SAC alloy family. This alloy is a low cost alternative for flow soldering.	•	•	•	•	•	•
Sn96.5/Ag3.5	221	May not have adequate thermal reliability or wetting and requires higher soldering temperatures than tin-silver-copper alloys.	•	•	•	•	•	•
Sn97.5/Ag2.5	221-240	Alloy for high-temperature applications only. Costly due to high silver content.	•	•	•	•	•	٠
SN100C® Sn/Cu0.7/Ni0.05+Ge	227	Ni and Ge-doped Sn/Cu alloy. Bright solder joints, improved wetting.	•	•	•	•	•	•
Sn99.3/Cu0.7	227	Cost-effective alternative for wave soldering and hand soldering applications. Attention should be paid to poor wetting and fatigue properties.	•	•	•	•	٠	٠
SCAN	227	Alternative low-cost lead-free alloy manufactured with a small amount of performance enhancing dopants.	•	•	•	•	•	•
Sn97/Cu3	227-300	Alloy for high-temperature applications only.	•	•		•	•	•
Sn95/Sb5	232-240	Alloy for high-temperature applications only. Poor wetting. Less cost-prohibitive than Sn/Ag.	•	•	•	•	•	•
Bi95/Ag5	262.5	Alloy for high temperature applications. Attention should be paid to potential embrittlement issues and poor thermal fatigue properties.	•	•		•		٠
Au80/Sn20	281	Eutectic die-attach alloy. Costly due to high gold content.	•	•		•	•	•
Sn5/Pb93.5/Ag1.5	305-306	High-temperature alloy used mainly for semiconductor attachment to ceramic boards. Also used in fuse and thermal couple attachment	•	•		•	•	•
Bi95/Sb5	308	Alloy for high-temperature applications. Attention should be paid to potential embrittlement issues and poor thermal fatigue properties.	•	•		•		•
Au88/Ge12	356	Gold die-attach alloy.	•	•		•	•	•

Epoxies and Underfills



AIM offers a variety of single component **Epoxy and Underfill** products. These are each available in all industry standard packaging for both printing and dispensing applications.

AT A GLANCE **AIM Epoxies**

- For Printing and Dispensing Applications
- Good for High Speed Placement Equipment
- Fast Curing
- High Shear Strength
- Non-Stringing Formula

AT A GLANCE

AIM Underfills

- Compatible with No-Clean Flux Residues
- Good Storage Properties
- Fast Flow
- Reworkable
- No Voiding



Specialty Materials

AIM's full range of specialty joining materials includes indium In addition to our extensive line of electronic grade and and gold/tin solders for assembly and a wide variety of indium specialty solder materials, AIM also offers a variety of alloys alloys for various applications. These alloys are available in paste, and complementary flux materials for industrial applications. preforms, ribbon, spheres, ingot, wire and foils.



AIM Specialty Materials offer solders for: • Fiber to Ferrule Soldering

- Solution Laser Die Attach
- Hermetic Packaging & Sealing
- Wetting & Sealing Laser Optics
- O Thermal Management & More

Chemicals and Cleaners

AIM offers a variety of **Chemicals and Cleaners** that are fully compatible with our many solder pastes, epoxies, fluxes and cored wires. Formulated for application by hand or automated dispensing equipment, these products are available in all industry standard packaging.

AT A GLANCE

AIM Chemicals and Cleaners

- Saponifiers
- Stencil Cleaners
- Flux Thinners

Cradle-to-Grave Solder Supplier

We understand that today's electronic assembly process engineers have more pressing issues to concentrate on than spent solder disposal. However, when environmental and liability issues are considered, it becomes an important and even potentially troublesome issue.

As a full-service recycler, AIM's Solder Dross Reclamation Program relieves you of the cost and responsibility of properly disposing of spent solder offering accurate analysis with the highest possible yield, complete paper trail, and prompt settlements.

As an AIM customer, you will be provided with free reclamation buckets and shipping labels along with instructions for returning dross.

Industrial Materials

- AIM Industrial Materials offer solders for-
- Image: Plumbing
- S Lighting
- O Automotive
- Spray Metalization



Corporate Overview

FOUNDED IN 1936, AIM is a leading global manufacturer of assembly materials for a broad range of industries.

AIM currently supports over 100 countries worldwide with an extensive network of locations, subsidiaries, joint ventures, representatives and distributors. A fast-growing global presence, AIM remains a privately owned and operated family business now currently in its third generation.

Our many SMT industry awards attest to AIM's commitment to innovative product R&D and process improvement, as well as providing customers with unsurpassed technical support, service and training.



AIM LOCATIONS

- Manufacturing
- ss Sales Support
- **TS** Technical Support
- sL Stocking Location

Australia

Sydney **M SS TS SL**

Brazil São Paulo **m ss ts s**

Canada Montréal, QC **M SS TS SL** China Shenzhen **m ss ts sl** Hong Kong, SAR **m ss sl** Suzhou **ss ts** Shanghai **ss ts**

Czech Republic Brno ss ts Germany Hamburg ss

India Bangalore **ss ts sl**

Mexico Juárez **m ss ts sl** Guadalajara **ss ts sl** Monterrey **ts sl** Philippines Manila **ss ts sl**

Poland Łódź **m ss ts sl**

Singapore Sengkang ss ts United Kingdom Surrey **ss**

United States

Cranston, RI **M SS TS SL** Anaheim, CA **SS** Chicago, IL **SS** Albany, NY **SS** El Paso, TX **TS** Manchester, NH **SS**



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