

Product Overview

Heraeus Electronics - Assembly Materials
Solder Powder

High Quality Solder Powder

Precision in Production

A background of 20 years in production of fine metallic powders, allows Heraeus to custom design, build and improve powder, and also the production equipment.

Heraeus is supported by a group of scientists from the most prestigious R&D institutions and universities.

This constantly upgraded process is fully automatic to reduce all human intervention. Moreover, the whole production flow – from alloy melting to powder packing – is under a strict control of humidity and temperature, so that variations of outside conditions do not affect the final product.

Heraeus solder powder products are performing an extraordinary function in the solder paste application. Heraeus is the only company that is ready to deliver not only the finished solder paste, but also the crucial solder powders to customers and even to competitors.

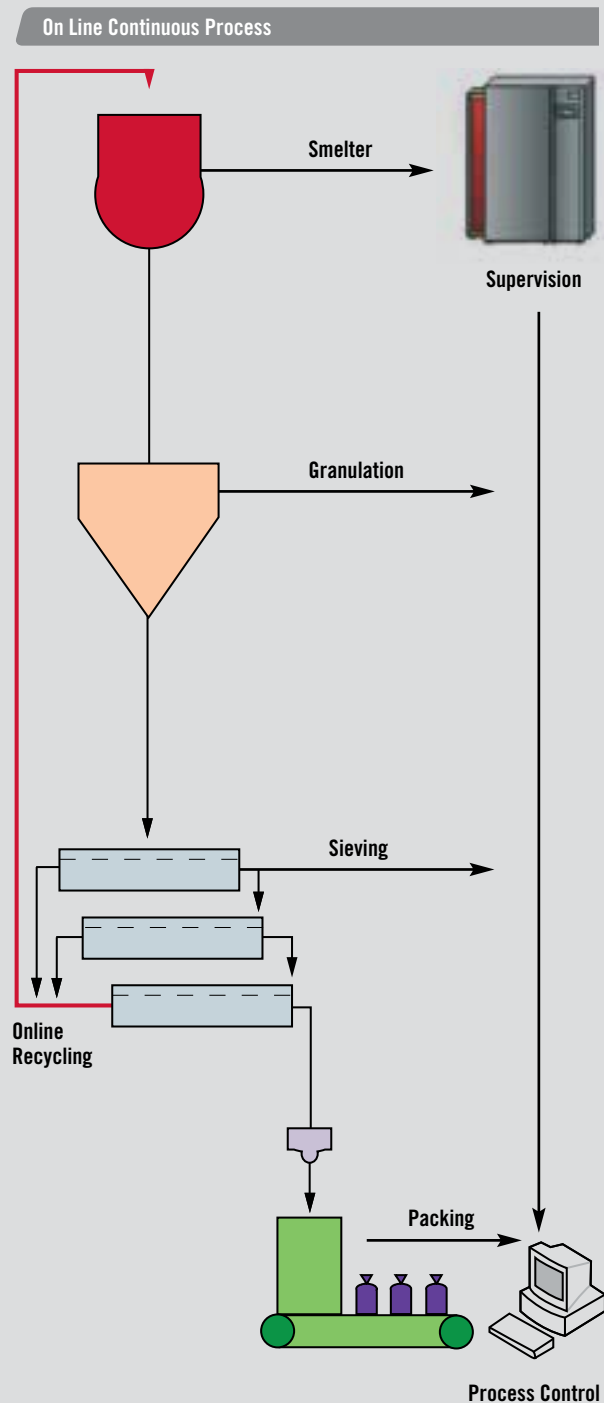
Automatic on line process ensuring

- High product consistency
- Higher productivity = lower production costs = competitive prices
- Safe & clean working environment
- High quality
- Pure & homogeneous alloy
- Low Oxide content
- Uniform microstructure
- High spherical shape

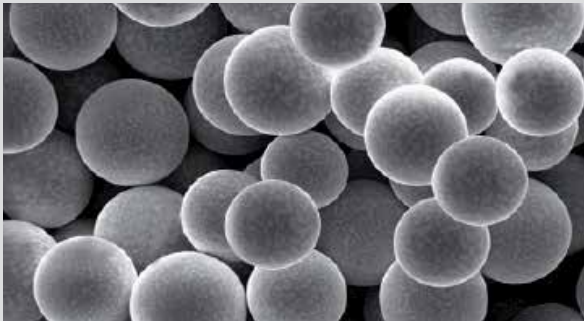
Quality Management System

A pragmatic ISO 9001 / 14001 quality management system is based on:

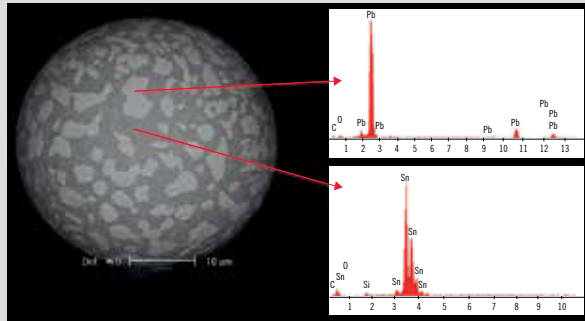
- A strict statistical process control of each production step of the results
- Ongoing training of our staff to ensure high level of qualification
- Periodic cross checking with external and customers' labs to enhance the common expertise.



Powder Consistency



Typical lot to lot consistency



High spherical shape – Uniform and homogeneous microstructure

Alloys

Alloy Tin lead/lead based	Melting point °C	Melting point °F
Sn43Pb43Bi14	144/163	291/325
Sn62Pb36Ag2	179	355
Sn57Pb40Bi3	179/183	355/361
Sn62.8Pb36.8Ag0.4	181/183	358/361
Sn63Pb37	183	361
Sn10Pb90	268/299	514/570
Sn10Pb88Ag2	268/301	514/574
Sn5Pb92.5Ag2.5	287/296	549/565
Sn5Pb92.5Ag1.5	296/301	565/574

Other alloys on request. Above table lists only the most usual alloys.

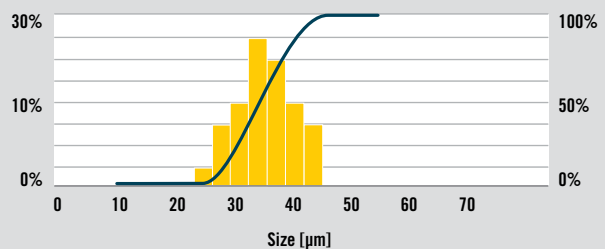
Alloy	Melting point °C	Melting point °F
Sn42Bi58	138	280
Sn96.5Ag3.0Cu0.5	217/221	423/430
Sn96.5Ag3.5	221	430
Sn95Ag5	221/245	430/473
Sn99.3Cu0.7	227	441
Sn97Cu3	227/300	441/572
Sn100	232	450
Sn95 Sb5	232/240	450/464

Size distributions

Type	Size
Type 2	45 – 75 µm
Type 2.5	38 – 53 µm
Type 3	25 – 45 µm
Type 4	20 – 38 µm
Type 5	15 – 25 µm
Type 6	5 – 15 µm

Special distributions on request

Particle Size Spectrum Class 3



Due to the Heraeus manufacturing method we are able to produce every alloy with melting points from 100 to 320 °C, in classes 2 to 5.

With our R&D department we are constantly improving our production process to offer odd alloys e.g. SAC+NiGe.

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