5N PLUS

# MICRO POWDERS

# ULTRAFINE POWDERS ENABLING TECHNOLOGIES

**Wide range of melting alloys**

**Tightly controlled size distribution**

## 5N PLUS MICRO POWDERS HAS DEVELOPED A PROPRIETARY ATOMIZING TECHNOLOGY PARTICULARLY EFFECTIVE IN PRODUCING ULTRAFINE SOLDER POWDERS RANGING FROM 1 TO 25 μM.

### FEATURES

- Low oxygen content
- Spherical particles
- Size from Type 5 to Type 10

### APPLICATIONS

- Screen Printing
- Dispensing and Jet Printing
- MiniLED and MicroLED packaging

## 5N Plus Technology

| Type 5 | Type 6 | Type 7 | Type 8 | Type 9 | Type 10 |
|---|---|---|---|---|---|
| [15 – 25 μm] | [5 – 15 μm] | [2 – 11 μm] | [1 – 8 μm] | [1 – 5 μm] | [1– 3 μm] |

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## Solder Powders

| Composition, wt.% | Solidifying range (°C) |
|---|---|
| Sn42Bi58 | 138* |
| Sn42Bi57Ag1 | 139* |
| Sn96.5-Ag3.0-Cu0.5 | 217-220 |
| Sn95.5-Ag4.0-Cu0.5 | 217-220 |
| Sn99.3-Cu0.7 | 227* |
| Sn95-Ag5 | 221-245 |
| Sn | 232 |
| Sn95-Sb5 | 237-240 |
| Sn90-Sb10 | 243-257 |
| Bi97.5Ag2.5 | 262-267 |
| Bi | 271 |

## Low Melting Point Alloys

| Composition, wt.% | Solidifying range (°C) |
|---|---|
| Bi32.5-Sn16.5-In51 | 61* |
| Bi33.7-In66.3 | 72* |
| Bi57-Sn17-In26 | 78* |
| Bi67-In33 | 109* |
| Sn50-In50 | 118-120 |
| Bi58-Sn42 | 138* |
| Bi57-Sn42-Ag1 | 139* |
| In97-Ag3 | 145* |
| Bi50-Sn50 | 138-154 |
| Bi40-Sn60 | 138-170 |
| In | 157 |
| Sn91-Zn9 | 199* |

* Eutectic or near-eutectic alloys

## High Temperature Powders

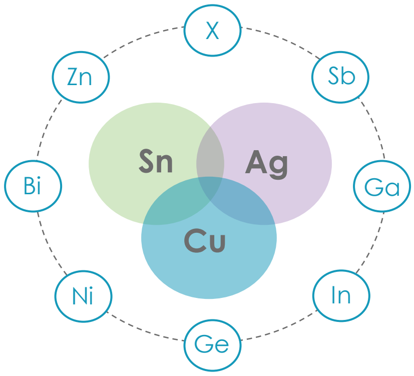
| Composition, wt.% | Solidifying range (°C) |
|---|---|
| Sn80-Cu20 | 227-520 |
| Cu65-Sn35 | 725-750 |
| Ag72-Cu28 | 779* |
| Cu90-Sn10 | 860-1010 |
| Cu | 1085 |

## Low Alpha Powders

Low alpha count powders are now an integral part of our product line-up for the electronic market. Sizes available include Type 5 to Type 8 in a variety of Pb-free alloys.

| | |
|---|---|
| ULA | <0.002 c/h/cm2 |
| SULA | <0.001 c/h/cm2 |

## Customized Metal Powders



We work closely with our customers to enhance the performance of their products. This often involves customized alloy compositions and particle size distributions for improvements in

✓ Reliability ✓ Printability ✓ Solderability

**5N Plus Micro Powders.**
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