

# 液相成型球形合金粉末制备技术

## Liquid Molding Technology



**关键技术1：**  
粉末粒径小，可制7号粉、8号粉、9号粉及10号粉

**关键技术2：**  
合金球大小可控，粒度分布高度集中

**关键技术3：**  
真圆度高，可达100%<sup>①</sup>

**关键技术4：**  
粉末表面Coating技术，保证优异的可焊性

**关键技术5：**  
低温（熔点139℃）& 中高温（219-245℃）超微焊粉制备

[专利号：201510438826.0 / 202010800494.7]

# 超微焊粉粒径分布

## Ultra-fine Solder Powder Size Distribution

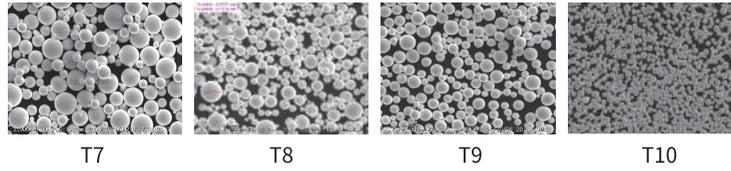
Size/ $\mu\text{m}$	Type 7(2-11 $\mu\text{m}$ )			Type 8(2-8 $\mu\text{m}$ )			Type 9(1-5 $\mu\text{m}$ )		
	11+	11-2	2-	8+	8-2	2-	5+	5-1	1-
Fitech	$\leq 1$	$\geq 94$	$\leq 5$	$\leq 1$	$\geq 94$	$\leq 5$	$\leq 5$	$\geq 90$	$\leq 5$
JIS Z3284	$\leq 1$	$\geq 80$	$\leq 10$	$\leq 1$	$\geq 80$	$\leq 10$	Not Yet		
J-STD-005A	$\leq 10$	$\geq 80$	$\leq 10$	Not Yet			Not Yet		

深圳福英达超微焊粉粒径集中度远超行业标准

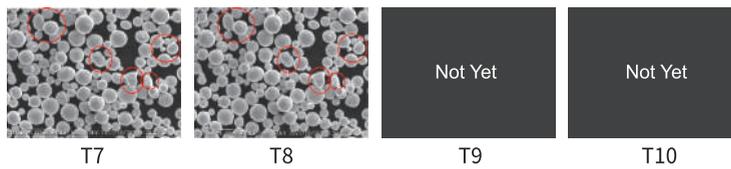
# 球形合金粉末形貌对比

## Comparison of Alloy Solder Powder

Fitech's Ultra-fine Solder Powder



Competitor's Solder Powder



# 工艺稳定性-优良的工艺性能

## Process Stability-Excellent Printability

### Bumps for mulation on $\Phi=70\mu\text{m}$ pad

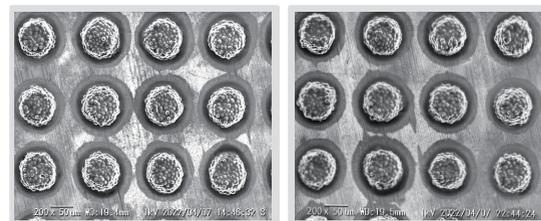
Product: Fitech siperior™ 1550 Photo: by SEM/Microscope

连续印刷

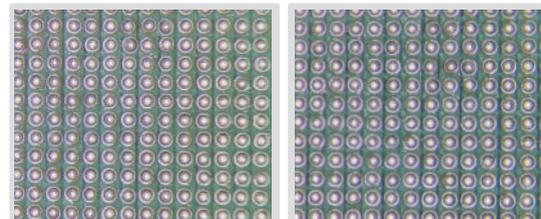
0H

8H

优异的形状保持和稳定性，优异的脱模转印性能



无锡珠、桥连



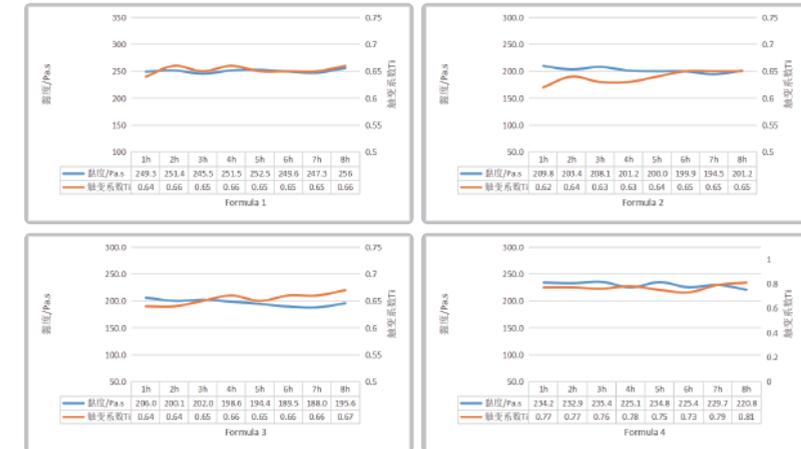
**Fitech siperior™ 1550 中温超微无铅锡膏**在实际应用中体现出了优异的印刷性、脱模转印性、形状和稳定保持性及足量且均匀的印刷量。长时间印刷后无锡珠、桥连缺陷。

# 工艺稳定性-稳定的粘度和触变系数

## Process Stability-Stable Viscosity and Ti

### 连续印刷8H

Continuously print for 8H



Products:Fitech® siperior 1550

# 清洗 - 免洗 / 水基清洗

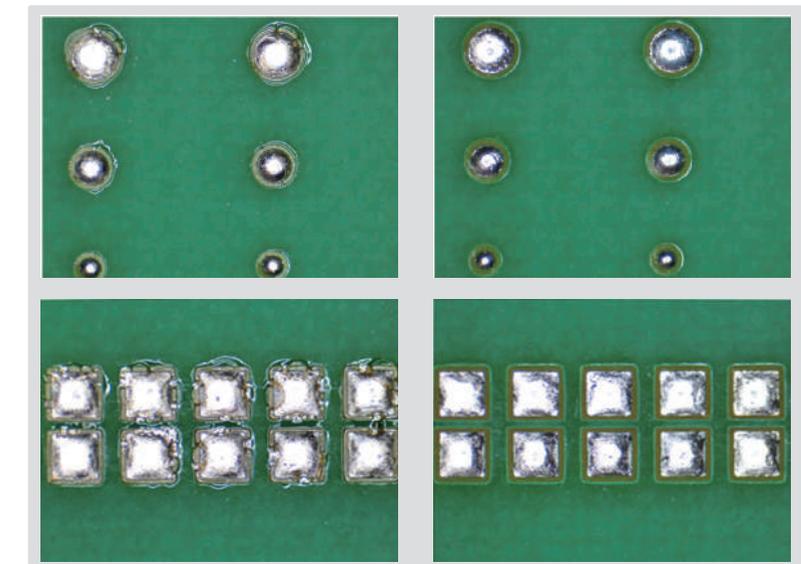
## Cleanable with Water-based Agent

### 清洗前后外观

Appearance before and after cleaning

Composition: SAC305

Size: Type 8 (2-8 $\mu\text{m}$ )



清洗前

清洗后

## Fitech SiP 封装锡膏产品

Fitech Solder Paste Products for SiP

基于Fitech的锡膏产品

Based on Fitech's solder paste product

Application	Fitech Product	Alloy	Melting Point (C)	Powder Type	Solder Point $\Phi$ : Dispensing / Printing( $\mu\text{m}$ )	Process
SiP	LT-RE 1700	SnBiAgX	137-145	Type 7 (11-2 $\mu\text{m}$ )	80/80	Printing/Dispensing
	FT-305	SAC-305	217-219			
	FH-260	BIX	262-270			
	siperior 1550	SAC-305	217-219	Type 8 (8-2 $\mu\text{m}$ )	60/70	Printing/Dispensing
	siperior 1565	SAC-305	217-219	Type 9 (5-1 $\mu\text{m}$ )	50	Dispensing
SiP	Under development	SAC-305	217-219	Type 10 (3-1 $\mu\text{m}$ )	~30	
		SnBiAg	139			

Fitech siperior™ 1550/1565 可水基清洗无铅超微锡膏可提供最小70/50 $\mu\text{m}$ 的锡膏点，提供Low  $\alpha$ 及Ultra low  $\alpha$ 版本，可稳定用于 $\mu\text{BGA}$ 预置。

## 产品参数表 - Fitech siperior™ 1550/1565

Parameters of Fitech siperior™ 1550/1565

物理特性	Fitech siperior™ 1550	Fitech siperior™ 1565
合金成分	SAC 305	SAC 305
焊粉型号	Type 8	Type 9
粒径尺寸	2-8 $\mu\text{m}$	1-5 $\mu\text{m}$
熔点	217-219°C	217-219°C
助焊剂类型	水基清洗/免洗	水基清洗/免洗
卤素	无卤	无卤
工艺	印刷	点胶

FiTech福英达

SOLDER PASTE  
SiP系统级封装焊料解决方案

FiTech福英达

Fitech siperior™ 1550/1565  $\alpha\text{F}$   
Type 8/9 Solder Powder Inside

深圳市福英达工业技术有限公司

服务热线

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官方网站：www.szfitech.com



深圳福英达官方网站

8号粉超微印刷锡膏|最小印刷点 $\Phi=70\mu\text{m}$   
9号粉超微点胶锡膏|最小点胶点 $\Phi=50\mu\text{m}$ 

Fitech Ultra-fine Solder Solutions