



# Lead-Free Solder Paste PF629-P30

Rev. 2016/03/01 Ver.02-01

#### **BASIC OVERVIEW**



SnAg0.3Cu0.7 Solder Paste Halide Free No Clean Low Voiding

#### **APPLICATIONS**

Universal Lead-Free SMD Solder Paste Wide Range of Applications and PCB designs

#### **FEATURES**

Appearance	Gray paste w/o visible foreign and clusters		
Alloy Composition	Sn/Ag0.3/Cu0.7	JIS-Z-3282	
Melting Point	217~226 °C		
Particle Size	(Type 3) +45μm < 1% , - 20μm < 10%	IPC-TM-650, 2.2.14	
	(Type 4) +38μm < 1% , - 20μm < 10%		
Powder Shape	Spherical		
Flux Content	11 ± 1.0 wt%	JIS-Z-3197, 8.1.2	
Halide Content	<0.0 wt% (in flux)	J-STD-004A	
Viscosity	200 ± 30 Pa.s (25±1°C, 10rpm, Malcom)	JIS-Z-3284 Annex 6	
Flux Type	ROL0	J-STD-004A	

#### Alloy Detail Composition

(Sn)	(Ag)	(Cu)	(Ni)	(Ge)	(Zn)	(AI)	(Sb)	(Fe)	(As)	(Bi)	(Cd)	(Pb)
DENA	0.2~	0.5~	0~	0~	0.001	0.001	0.05	0.02	0.03	0.06	0.002	0.05
REM.	0.4	0.9	0.01	0.01	MAX	MAX	MAX	MAX	MAX	MAX	MAX	MAX

Patent No.: U.S Patent No. 6179935B1, Germany Patent No.19816671C2

(wt%)

Scan Code for Solder Paste Documents







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#### **PERFORMANCE & RELIABILITY**

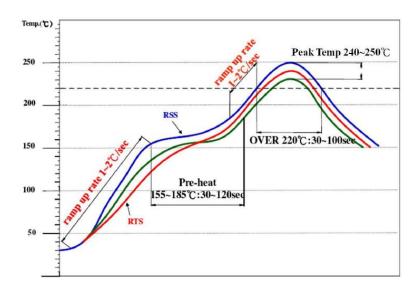
Copper Plate Corrosion Test	Pass	JIS-Z-3197, 8.4.1
Spreading Test	> 70%	JIS-Z-3197, 8.3.1.1
Ion Chromatography Test	0.0 wt%	IPC-TM-650 Method 2.3.28.1
Copper Mirror Test	Pass	IPC-TM-650, 2.3.32
Viscosity Test (25°C,10 rpm)	200 ± 30 Pa.s	JIS-Z-3284. Annex 6
Tackiness Test (gf)	> 130 (8hr)	JIS-Z-3284. Annex 9
Slump Test	Pass	JIS-Z-3284. Annex 7,8
Solder Ball Test	Pass	JIS-Z-3284. Annex 11

S.I.R. Test	<b>A</b>	$>$ 1 x 10 $^{9}$ $\Omega$ , Pass	IPC-TM-650, 2.6.3.3
Electro Migration Test	<b>♦</b>	Pass	IPC-TM-650, 2.6.14.1

<sup>▲</sup> Test Conditions: 85 °C, 85% RH for 168hrs

Test Conditions: 65°C, 88.5% RH for 596 hrs

#### **RECOMMENDED REFLOW PROFILE**



Ramp Up Rate (30-150°C): 1.0-2.0 °C/sec

Pre-heating Time (150-185°C): 30-120 sec

Time Period Above 220°C: 30-100 sec

Ramp Up During Reflow: 1.0-2.0 °C/sec

Peak Temperature: 240-250 °C

Ramp Down Cooling Rate: 1.0-6.0 °C/sec

Note: The recommended reflow profile is provided as a guideline. Optimal profile may differ due to oven type, assembly layout or other process variables.





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#### STORAGE & HANDLING:

- Refrigerate the solder paste at 0-10°C. Shelf life is 6 months from production date (sealed package).
- Keep away of direct sunlight.
- Allow the paste to reach defined printing temperature (room temperature) for 3-4 hrs. Do not heat up the solder paste rapidly.
- For jars packaging, mix the solder paste before use for 1-3 mins by plastic spatula.
- It is recommended to finish fresh paste within 24 hrs. Do not store used paste and fresh paste in the same jar.
- If printing process was interrupted for more than 1 hour, remove the remained paste from stencil and seal in the jar.
- Recommended printing environment is 22-28°C and RH 30-60%.

Note: For more information, please refer to solder paste application guideline sheet

#### **HOW TO ORDER**

## PF629 - P30 - T3 - 500

Solder Alloy PF629 = SnAg0.3Cu0.7

P30 = ROL0

Particle Size  $T3 = 20-45 \mu m$ 

 $T4 = 20-38 \mu m$ 

Weight / Packaging 30 = syringe 30g 100 = syringe 100g

150 = syringe 150g 250 = plastic jar 250g

500 = plastic jar 500g

600 = small cartridge 600g 1200 = large cartridge 1200g

**CARTRIDGE** 

JAR

SYRINGE

#### CONTACTS

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