

High durable Pb-free solder paste LSP-1



With the advancement of fuel efficiency and electrification technologies, demands for solder durability is enhanced. LSP-1 is a lead-free solder paste with high durability and reliability even under severe conditions.

■ Solder paste classification

Solder composition	SnPb	SAC305	High durable	Low melting point
Powder size	Type4 (20 – 38μm)	Type5 (15 – 25μm)	Type6 (5-15μm)	Type7 (2-11μm)
IPC-Flux type	L0	L1	M0	M1
Reflow condition	Air	Nitrogen		

■ Features

- Our original solder alloy ensure long-term joint reliability even in severe conditions.
- Having high reliability (electrical reliability and whiskers) required for automotive applications.
- Excellent prevention for cracks of flux residue (-40℃⇔125℃、2000cycles).

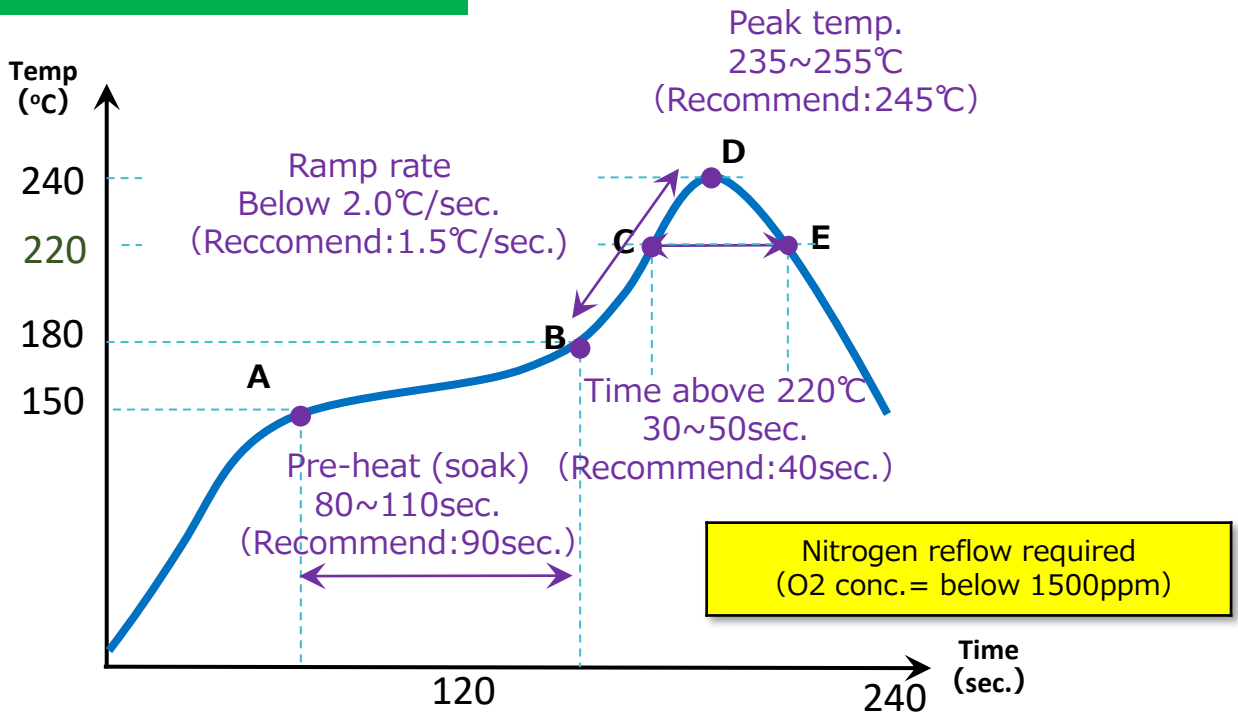
■ Properties (representative value)

		Property (Representative value)	Note
Product name		PS48BR-600-LSP-1	–
Alloy composition		Sn-3.2Ag-0.5Cu-4.0Bi-3.5Sb-Ni-Co	–
Powder size		20-38μm(Type4)	IPC J-STD-005A
Solidus temp.		205℃	JIS Z 3198-1
Liquidus temp.		223℃	
Halide content		0.0%	JIS Z 3197
Flux content		10.6%	
Copper corrosion		No corrosion	
Surface insulation resistance		$> 1 \times 10^9 \Omega$	
Migration		No migration	
Dryness		No tackiness (Flux residue)	
Viscosity property	Viscosity	230Pa·s	JIS Z 3284-3
	Thixotropic index	0.48	
Slump in printing		<0.2mm gaps	
Slump in heatin		<0.3mm gaps	
Tackiness		$> 1.0N(0 \sim 24h)$	
Flux efficacy / De-wetting		Class2 / No de-wetting	
Solder Ball		Class3(0、24h)	
Shelf life		6 months	JIS Z 3284-4
			Storage(0~10℃)

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Recommended reflow profile



Precautions for handling

(1) Storage conditions

- 1) Store between 0 and 10°C.
- 2) Avoid exposing to direct sunlight.
- 3) Confirm the lid is closed firmly before storage.

(2) Cautions for handling

- 1) Avoid the handling of solder paste other than operator.
- 2) Wear appropriate gloves and glasses to use solder paste.
- 3) Wipe off solder paste with ethanol when it adheres to your skin.
- 4) Wash hands well after handling solder paste.
- 5) Set up a ventilation system at the handling place.

(3) Usage Instructions

- 1) Do not open the container until solder paste reaches to room temperature.
 - * Solder paste quality will be deteriorated due to water condensation if you open the lid before getting to room temperature.
 - * Avoid rapid heating, such as using heater.
- 2) Stir solder paste well before using.
- 3) Do not use solder paste with any other kind of solder paste or solvent.
- 4) Avoid using used solder paste mixed with fresh solder paste.
- 5) Recommended conditions for usage: temperature 22 to 28 °C and humidity 50% RH.