

Product description

GENMA SMD solder paste – our SB6-HLGQ-MSD solder paste is a low-temperature solder paste that was specifically developed for pin-in-paste applications. It is used in areas where a second reflow solder process is necessary or for very temperature-sensitive components. The solder paste features good wetting properties and prints well. We recommend the nozzle screen method for printing the solder paste. Cleaning after soldering is not necessary. The solder paste can be soldered under air or nitrogen reflow.

Technical properties

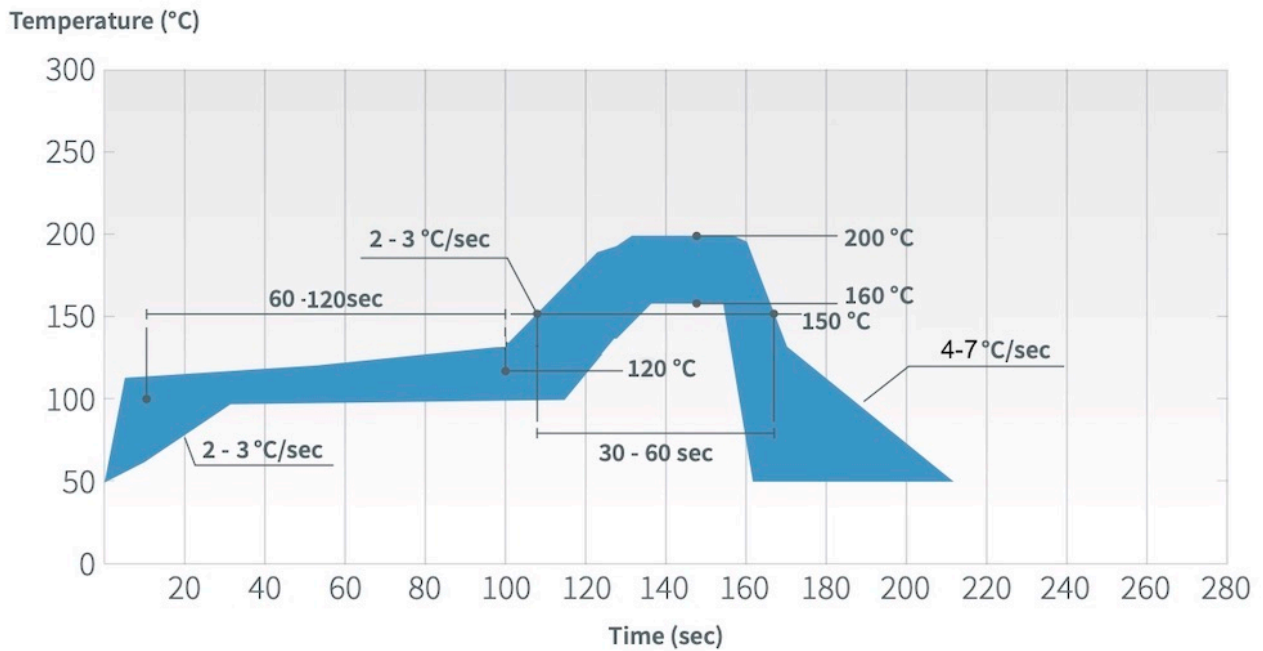
	Specific value	Testing method
Alloy	Sn 42,6 / Bi 57 / Ag 0,4	
Melting temperature range	139 - 141	IEC61189-11
Powder size (µm)	22 - 38, type 4	IPC-TM-650-2.2.14.2
Viscosity (Pa · s)	110 ± 30	IPC-TM-650-2.4.34.3
Flux content (wt %)	10,5 ± 1	IPC-TM-650-2.3.34.1
Flux type	ROL0	IPC-J-STD-004B
Halide content (wt %)	< 0,15	IPC-TM-650-2.3.35
Insulation resistance (Ω)	≥ 1 x 10 ¹¹ (40°C 90 % r. L)	IPC-TM-650-2.6.3.3
Insulation resistance (Ω)	≥ 5 x 10 ⁸ (85°C 85 % r. L)	IPC-TM-650-2.6.3.3
Migration test	No migration	IPC-TM-650-2.6.14.1
Copper mirror test	No corrosion	IPC-TM-650-2.3.32
Packaging	Jar (0,5 kg) Semco cartridge (0,65 kg, 1,2 kg)	
Shelf life	4 month at 0-10°C	
Transport	keep cool	
Tempering the solder paste	Set to room temperature before opening to avoid condensation.	
Recommended temperature during print (°C)	25 ± 3	
Recommended relative humidity in % during print	50 ± 20	

Compliance

Conform with RoHS-Regulation 2011/65/EU and 2015/863/EU

Contains no substances more than threshold (0,1%) according to REACH legislation EG Nr. 1907/2006 (SVHC-list - dated 10.03.2022)

Recommended Reflow Profile



Preheating

The temperature increase should be 2°C to 3°C/sec until the preheating zone is reached. If the temperature rises too quickly this may cause a running of the solder paste.

To achieve a temperature spread (Δt) on the circuit board that is as limited as possible, the temperature in the preheating zone should be between 120 and 150°C and the preheating time should be 60 to 120 seconds. If the temperature is too low or the preheating time too short, the temperature spread (Δt) on the circuit board will be too high. If the temperature is too high and the preheating time too long the activators will get lost which may lead to poor melting of the solder paste.

Reflow peak

We recommend keeping the temperature at 160°C for 20 to 150 seconds.

Cooling down

The cooling rate should be between 4 and 7°C/sec. If the cooling rate is too low components may be displaced or come up and reduce the strength of the solder connections. If the cooling rate is too high, however, components can be damaged through thermal shock.