

Solder paste SB2-MT355-GK - INAKTIV

Product description

GENMA SMD solder paste – our SB2-MT355-GK is a low-temperature solder paste that is used in areas where a second reflow solder process is necessary or for temperature-sensitive components. The solder paste features good wetting properties and prints well. Cleaning after soldering is not necessary. The low-temperature solder paste can be soldered under air or nitrogen reflow.

Technical properties

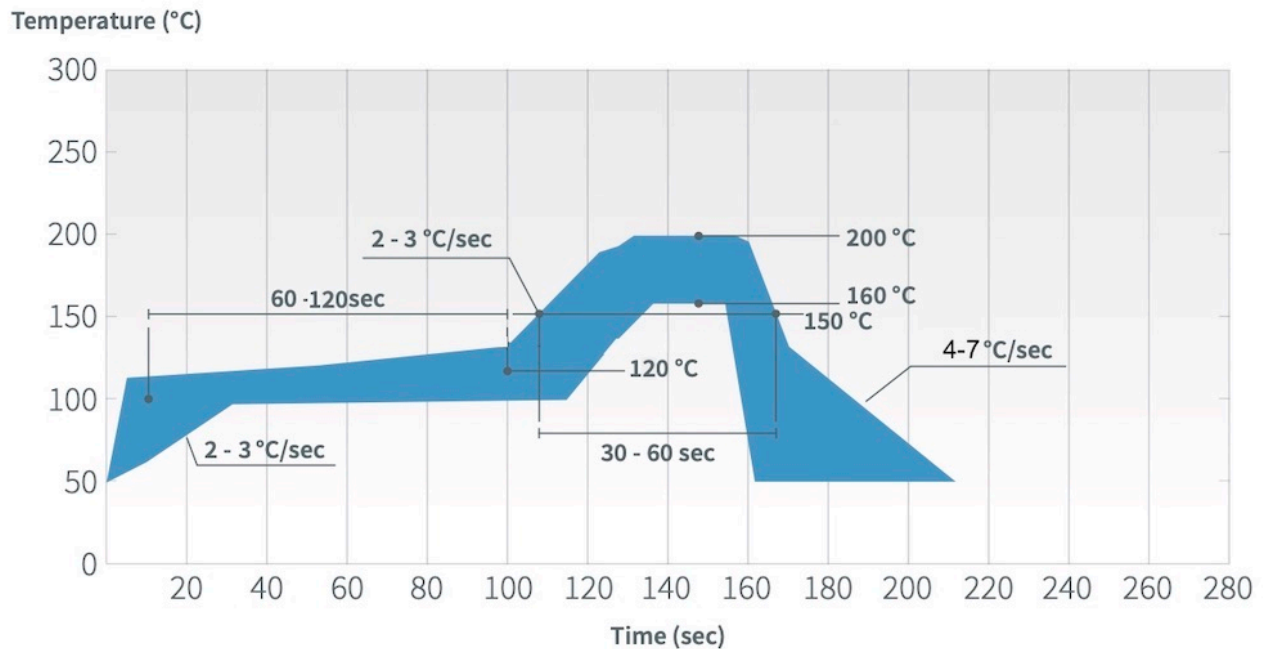
| | Specific value | Testing method |
|--|--|--------------------------------------|
| Alloy | Sn 42 / Bi 57 / Ag 1 | |
| Melting temperature range | 139 - 141 | IEC61189-11 |
| Powder size (µm) | 22 - 45, Typ 5 | IPC-TM-650-2.2.14.2 |
| Viscosity (Pa · s) | 190 ± 20 | IPC-TM-650-2.4.34.3 |
| Flux content (wt %) | 10 ± 0,5 | IPC-TM-650-2.3.34.1 |
| Flux type | ROL1, no clean | IPC-J-STD-004B |
| Printing pitch (mm) | 0,4 - 0,5 | |
| Halide content (ppm) | 0,2 ± 0,05 | IPC-TM-650-2.3.35 |
| Slump in print (mm) | ≤ 0,4 | IPC-TM-650-2.4.35 |
| Slump in heat (mm) | ≤ 0,4 | IPC-TM-650-2.4.35 (120°C / 60sec) |
| 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 printing speed (mm/s) | 20 - 80 | |
| 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 26.02.2024)

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.