Solder paste T6204-GM155-GQ COSMO

GENMA EUROPE

Product description

GENMA solder paste – our lead-containing T6204-GM-155-GQ solder paste convinces with its outstanding printability, also in permanent printing applications. The solder paste produces sharp printing contours and features consistent adhesiveness during the pick-and-place process. Its consistent viscosity allows storage of up to 12 months which facilitates material planning. Even on difficult surfaces, its excellent wetting properties provide for perfect soldering joints - also on BGAs. The broad melting temperature range of this alloy helps to prevent the tombstone effect. Hardly any voids in the solder connections. 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 62 / Pb 37,6 / Ag 0,4	
Melting temperature range	179 - 190	IEC61189-11
Powder size (µm)	22 - 38, type 4	IPC-TM-650-2.2.14.2
Viscosity (Pa · s)	190 ± 20	IPC-TM-650-2.4.34.3
Flux content (wt %)	9,5 ± 0,3	IPC-TM-650-2.3.34.1
Flux type	ROL0, no clean	IPC-J-STD-004B
Printing pitch (mm)	0,4	
Halide content (wt %)	0,035 ± 0,015	IPC-TM-650-2.3.35
Slump in print (mm)	0,2	IPC-TM-650-2.4.35
Slump in heat (mm)	0,2 - 0,3	IPC-TM-650-2.4.35 (150°C / 60sec)
Insulation resistance (Ω)	≥ 1 x 10^{12} (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	12 months at 0-10°C, 3 months at < 35°C	
Transport	Without cooling	
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	

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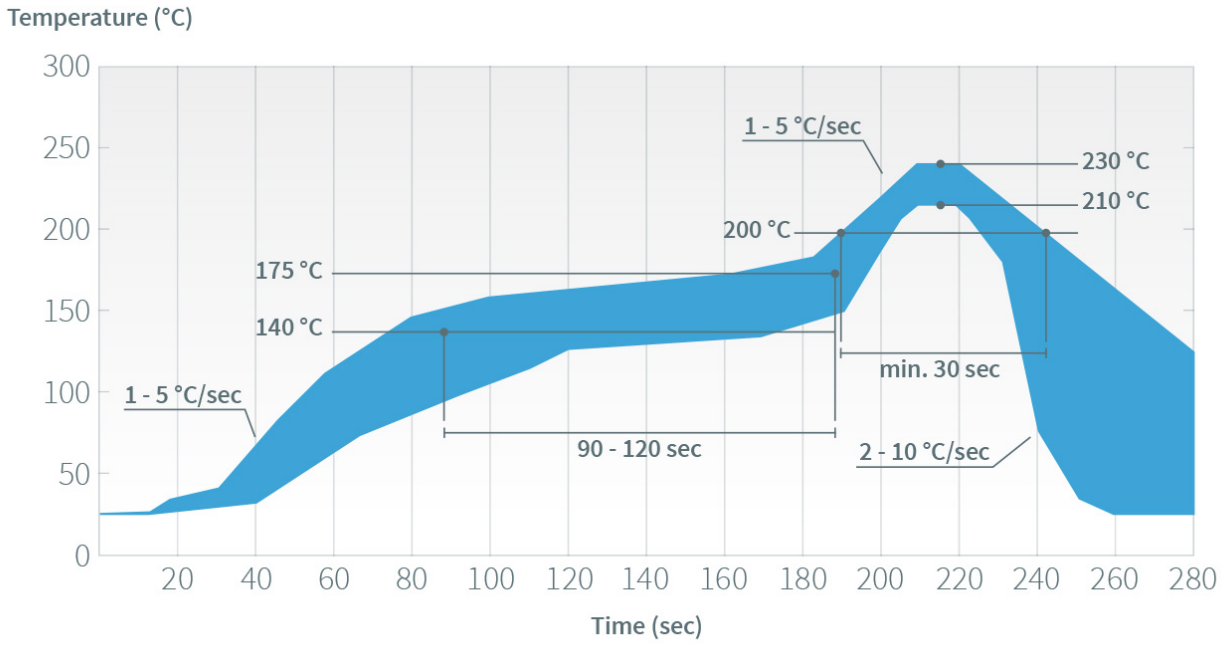
Compliance

Contains - except of lead - no substances more than threshold (0,1%) according to REACH legislation EG Nr. 1907/2006 (SVHC-list - dated 13.11.2025)

Recommended Reflow Profile



Preheating

The temperature increase should be 1°C to 5°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 (⊿t) on the circuit board that is as limited as possible, the temperature in the preheating zone should be between 140 and 175°C and the preheating time should be 90 to 120 seconds. At the end of the preheating zone a temperature between 160 and 175°C should be reached. If the temperature is too low or the preheating time too short, the temperature spread (⊿t) 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 above 200°C for 30 to 40 seconds. In the peak temperatures of 210 to 230°C should be reached.

Cooling down

The cooling rate should be between 2 and 10°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.

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