Solder paste NP303-FL003-T4

Product description

GENMA solder paste - our NP303-FL003-T4 solder paste was developed for use with formic acid (HCOOH) in vacuum soldering systems. The flux in our NP303-FL003-T4 dissolves without leaving any residue. DIE bonding can be carried out directly after soldering without cleaning on a 100% process-safe surface. The solder paste provides a clean surface without residue after the soldering process in the vacuum contact heat or vacuum reflow oven. This increases process reliability enormously, saves process costs and shortens the throughput times of the product in the production process. In combination with the necessary vacuum soldering system, the solder joints are virtually free of voids. The solder paste is primarily used in DIE attach and power device packaging applications. The residue-free and void-free solder joint ensure good current and heat transfer in power electronics. When soldering DIE with DCB / DBC (direct copper bonded), high layer thicknesses are often required. The solder paste is designed for the special requirements of the printing process and can be modified to meet customer-specific requirements. Up to now, preforms or solder pastes with classic flux have mostly been used in these applications. When using preforms, a preform must be purchased for each geometry. Solder paste printing is much more flexible here and can replace the high variance of preforms. When switching from resin-containing solder pastes to our NP303-FLV-1B-T4, the entire cleaning process, including surface inspection, can be eliminated. This increases process reliability, saves costs, reduces throughput times and unnecessary emissions.

Technical properties

	Specific value	Testing method
Alloy	Sn 96,5 / Ag 3,0 / Cu 0,5 / SAC305	
Melting temperature range	217 - 221	IEC61189-11
Powder size (µm)	22 - 38, Type 4	IPC-TM-650-2.2.14.2
Packaging	Jar (0,5 kg) Semco cartridge (0,65 kg, 1,2 kg)	
Tempering the solder paste	Set to room temperature before opening to avoid condensation.	
Recommended printing speed (mm/s)	20 - 120	
Recommended temperature during print (°C)	25 ± 3	
Recommended relative humidity in % during print	50 ± 20	
Squeegee material	Metal, polyurethane, plastic (hardness 70 - 100 Shore)	
Recommended squeegee pressure (Mpa/cm squeegee width)	0,1 - 0,3	
Squeegee anglel (°)	40 - 70	
Clearance (mm)	0 - 0,1	
Stencil separation speed (mm/sec)	3 - 11	
Solder paste roll size (mm)	15 - 25	

Compliance

Dated 13.11.2025

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

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

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Contains no substances as defined by the Toxic Substance Control Act (TSCA) of the United States Environmental Protection Agency.

Contains no substances according to POP Regulation EU 2019/1021.

Contains no Per- and PolyFuluoroAlkyl Substances (PFAS).

Contains no phthalates or latex.

Contains no substances according to California Proposition 65.