

Halogen free solder paste for automotive application

S3X58-M555

Sn 3.0Ag 0.5Cu



New generation Halogen Free Technology

Prevents occurrence of migration under saturated conditions

Automobiles are often exposed to drastic temperature & humidity changes, thus the PCBs used for those applications are also expected to be used in such environments. Those PCBs are required to maintain superior insulation resistance under dewed / badly saturated conditions.

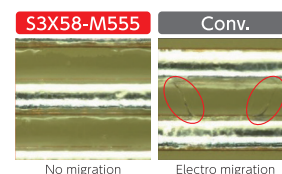
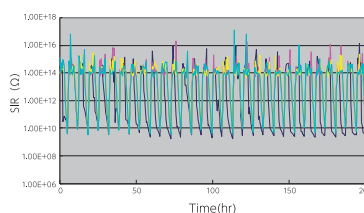


Newly adopted encapsulation technology

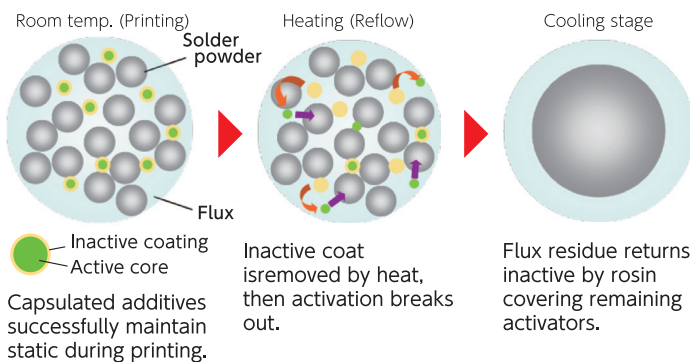
Adoption of additives with intense activation usually accelerates flux reaction with solder powder in a room temperature, resulting in viscosity increase making production quality inconsistent. In S3X58-M555, the additives are encapsulated with an inactive coat, and contribute to the co-existence of viscosity stability and superior wetting.

[Dew cycling test]

- Test conditions
 - Temperature: 10°C ⇄ 80°C
 - Humidity: 30%RH ⇄ 95%RH
 - No. of cycle: 30 cycles
- Test board
 - IPC-B-25 (E-pattern)
 - Pattern size width: 0.318mm
 - Pattern pitch: 0.318mm

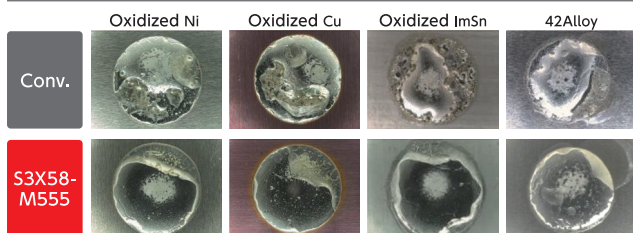


Capsulation image



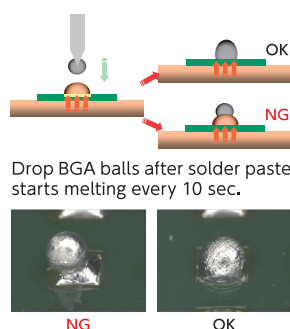
Perfect wetting with no de-wetting

De-wetting test (heated at 150 °C for 16 hr.)

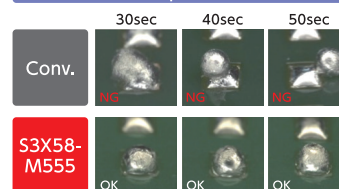


Prevents Head-in-Pillow at BGA

Ball drop test



Comparison



The new flux effectively prevents Head-in-Pillow defects by improving heat resistance.

Product specifications

Product name	S3X58-M555
Alloy composition (%)	Sn 3.0Ag 0.5Cu
Melting point (°C)	217-219
Particle size (μm)	20-38
Viscosity (Pa · s)	220
Flux content (%)	12.0
Halide content (%)	0
Flux type	ROLO

