

SENJU ECO SOLDER

M705-GRN360-KV Series

Lead-free Solder Paste

Senju ECO Solder Paste M705-GRN360-KV series has been developed as a result of many years experience working with customers using Lead-free soldering in production. It features improved thermal properties required for high-density applications with BGA's and CSP's devices.

Other benefits include;

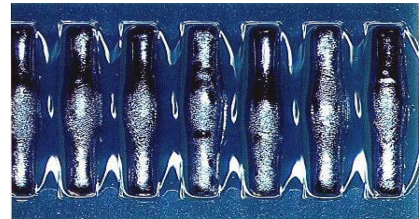
- Very stable solder paste viscosity over a longer period
- Clear flux residues combined with excellent joint cosmetics
- Excellent wettability
- Reduced flux residue cracking and occurrence of side balling.

Reflow ability

The residue of M705-GRN360 series solder paste after reflow has a clear colour showing no cracking or peeling of the flux residue.



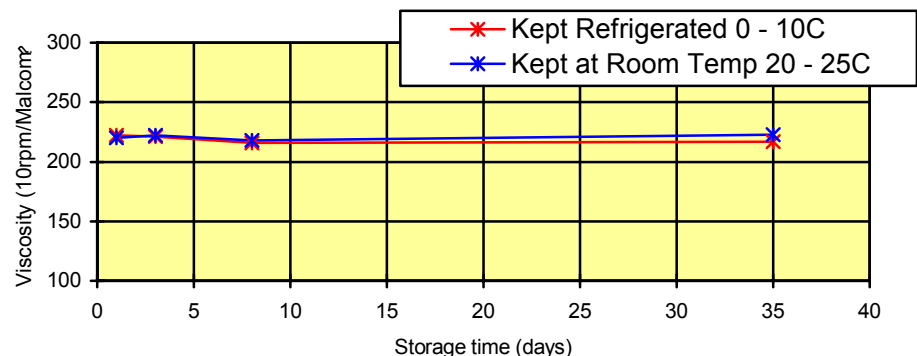
Pattern for 0.5mm pitch



Pattern for 0.4mm pitch

Storage Stability

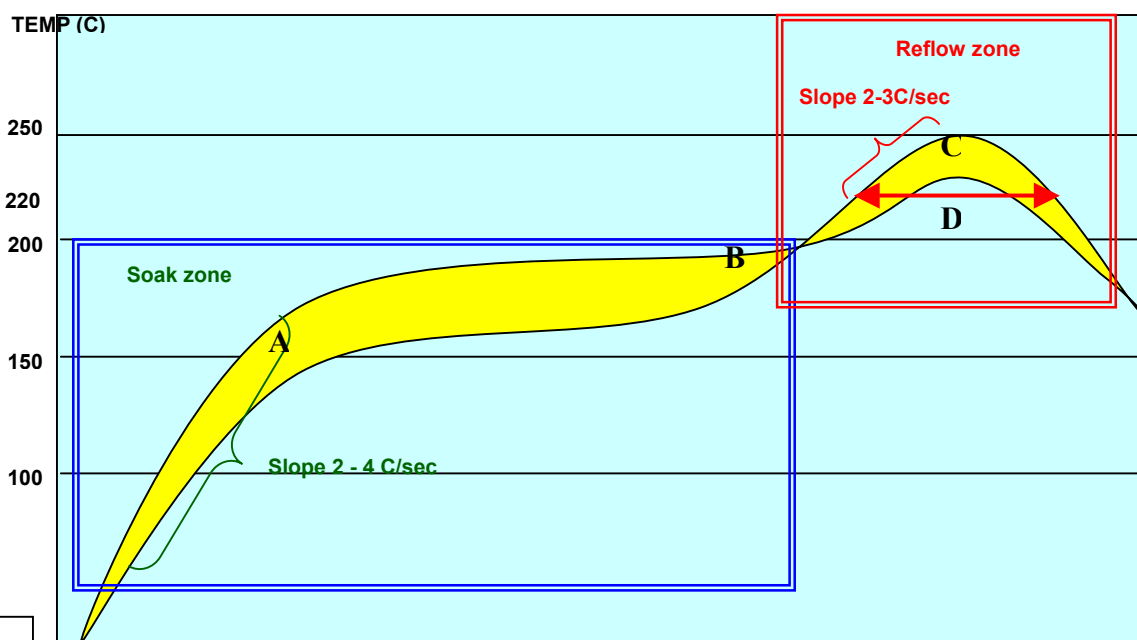
Long-term stability of the solder paste is a key factor for a stable production, especially for irregular or low volume production requirements. The shelf life of the solder paste is 6 months when kept unopened in a refrigerated storage (0 - 10°C) But the below graph shows the solder paste is very stable when kept at ambient temperature between 20 – 25°C for up to 35 days.



M705-GRN360-KV Specification

Item	M705-GRN360-KV Series	Test Method
Alloy Composition	Sn 96.5: Ag3.0:Cu 0.5	
Melting temperature	217 - 219°C	DSC
Powder Size	25 – 36µm	SEM & Laser method
Flux Type	ROL0	J-STD-004
SIR (40C 90% RH)	Over 1.0×10^{12}	JIS Z 3284
Electro-migration Resistance	Over 1.0×10^9 No Migration	JIS Z 3284
Copper Mirror	Pass	JIS Z 3197
Fluoride Test	Pass	JIS Z 3197
Solder paste Viscosity	K1 – 180 ± 20 Pa.s K2 – 200 ± 20 Pa.s	JIS Z 3284
Thixotropic Index	0.6	JIS Z 3284
Flux Content	11.5%	JIS Z 3197
Hot Slump	0.4mm	JIS Z 3284
Tackiness	1.3N	JIS Z 3284
Tackiness Time	Over 24hr / 1.0N	JIS Z 3284
Copper Plate	Pass	JIS Z 3197

Solder Profile



Local Contact

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Recommendations

A; Soak start 150 – 180C
B; Soak end 180 – 200C
Soak Time 60 – 120 sec

C; Peak Temp 230 – 250C
D; Time above 30 – 60 sec
 220C Solidus line