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GC 10 – THE GAME CHANGER

TEMPERATURE STABLE, NO-CLEAN SOLDER PASTE

In what is a true market breakthrough, Harima has developed the first-ever temperature stable solder paste. GC 10 is stable at 26.5°C for one year and at temperatures of up to 40°C for one month, which provides benefits throughout the logistics and operations chain – from shipping/receiving to printing and reflow. The temperature stability of this no-clean material delivers exceptional performance attributes, such as 24-hour abandon times, stabilized and consistent paste-transfer efficiency, expansion of the reflow process

window in air, more than 95% on-line paste utilization, and significant reductions in solder-related defects. All of these advantages combined result in higher yields and more cost-effective PCB assembly.



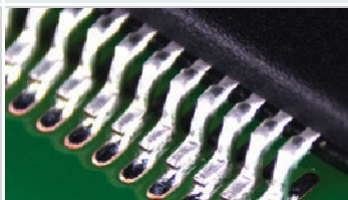
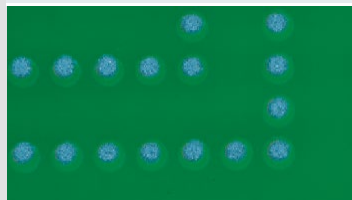
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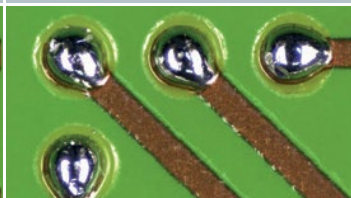
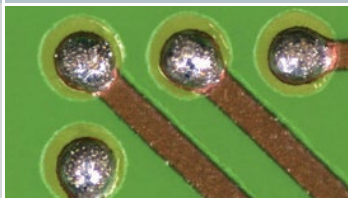
GC 10 BENEFITS

IMPROVED PRINTING	IMPROVED STABILITY	IMPROVED REFLOW	IMPROVED PASTE MANAGEMENT
Six Sigma quality paste deposition with extended abandon times	On-line stencil stability: 3 days at 80% RH	Excellent coalescence in air for 0201, 01005 and 0.3 mm pitch components	Exceptional on-line paste utilization
Groundbreaking standards for stencil life	Paste stability: 12x over conventional	After 3 days at 80% RH, zero dewetting on long soak, high-temperature reflow profile	Eliminates end-of-day paste scrapping
High yield paste volumes with lowest aspect ratio: 20% lower than industry standard	Elevated temperature stability: 100x over conventional	Minimal hot slump at 182°C, improving solder joint reliability	Eliminates refrigerated pre-production and warehouse storage
Industry leader in paste-transfer efficiency	Improved shipping logistics management	Best-in-class cosmetic appearance for Pb-free solder joints	Eliminates cold pack, dry ice and overnight shipping
Exceptional cost savings from reducing the required amount of paste	Wide process window	New flux technology improves total pad solderability in air with reduced solder paste volumes	Zero startup time – no kneading



GC 10 ATTRIBUTES

ATTRIBUTES	CURRENT TECHNOLOGY	GC 10
Regulatory Compliance	Halide-free or halogen-free	Zero halogens added
Particle Size Distribution	Type 3, 4	Type 3, 4, 4.5 (4A), 5
STORAGE		
Performance Stable at 26.5°C	1 month	1 year
Performance Stable at 40°C	1 day	1 month
Performance Stable at 50°C	None	1 week
PROCESS		
Abandon Time	Up to 4 hours	Up to 24 hours
Stencil Life	Up to 8 hours	Up to 72 hours
Soak Temperature (reflow)	150 – 180°C	150 – 200°C
On-line Paste Utilization	75%	> 95%
Startup Time	4 – 24 hours	0 hours



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