

# ALPHA<sup>®</sup> OM-220 Solder Paste

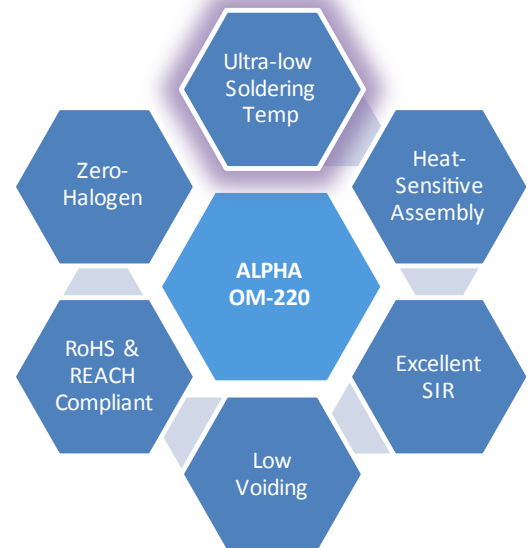
Ultra-Low Temperature Soldering (ULTS) Solution

## Soldering Heat-Sensitive Components (<150 °C)

ALPHA OM-220 is a new, ultra-low temperature solder paste paired with ALPHA ULT1 alloy intended for soldering temperature sensitive components and substrates.

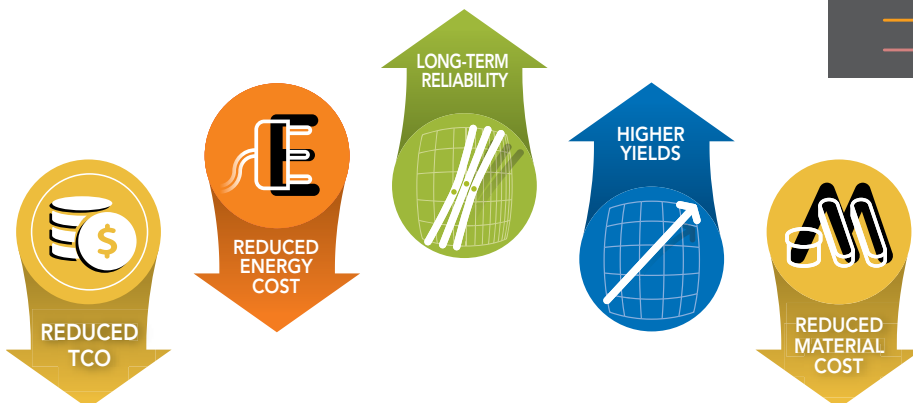
This innovative chemistry enables peak reflow temperatures below 150 °C, making it ideal for soldering heat sensitive components and sub-assemblies. In addition, ALPHA OM-220 permits cascaded / hierarchical soldering, as well as novel hermetic sealing solutions.

This technology is well suited for a broad range of applications involving temperature-sensitive assemblies, in end applications, such as consumer electronics, in-cabin automotive electronics and medical devices.



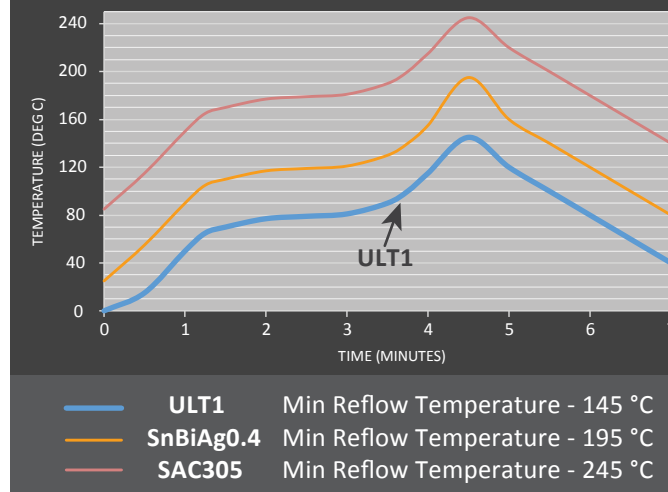
## KEY FEATURES

- Low reflow peak temperature < 150 °C.
- Enables use of lower cost substrates & components.
- Reduction of warpage (component & substrate) vs SAC process.
- Excellent electrical reliability; passes JIS Z 3197 & J-STD-004B SIR testing.
- Exhibits low voiding characteristics; passes IPC-7095 Class 3 voiding on BGA components.
- Halide-free & zero-halogen compliant.



\* Zero-Halogen is defined as no halogen intentionally added to the formulation.

## Minimum Reflow Peak Temperature Requirement for Alloys

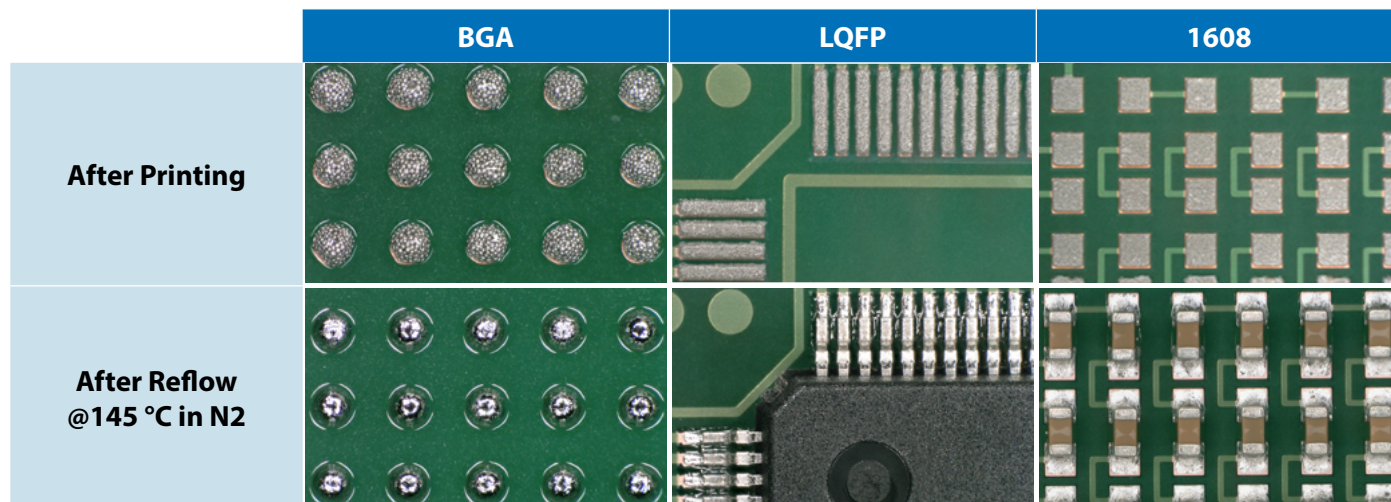


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# ALPHA<sup>®</sup> OM-220

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ALPHA OM-220 ULT1 produces uniform and shiny joints with clear and soft flux residues.



## PERFORMANCE SUMMARY

PROCESS BENEFITS	PROPERTIES	PERFORMANCE CAPABILITIES
Print Process Window	Fine Feature Print Definition	230 micron BGA circle with Area Ratio = 0.57
	Tack/stencil Life	8 Hour Stencil Life
	Print Speed Range	50 to 100 mm/s (2 to 4 in/sec)
Reflow Yield	Reflow Environment	Nitrogen
	Resistance to Voids	Exceeds IPC-7095 Class 3 Requirements
	Random Solderballs	Passes IPC J-STD-005A Criteria - Acceptable
	Coalescence (N2 Reflow)	Good Coalescence Down to 170 microns
Electrical Reliability	Flux Residue Characteristics	Clear, Colorless & Soft
	IPC SIR	Passes IPC J-STD-004B TM 2.6.3.7
	JIS SIR	Passes JIS Z 3197
Environmental	Classification	ROLO as per IPC J-STD-004B
	Halogen Content	Zero-Halogen



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to know more



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