

ALPHA[®] OM-358

Ultra-Low Voiding, High-Reliability, Zero-Halogen Solder Paste

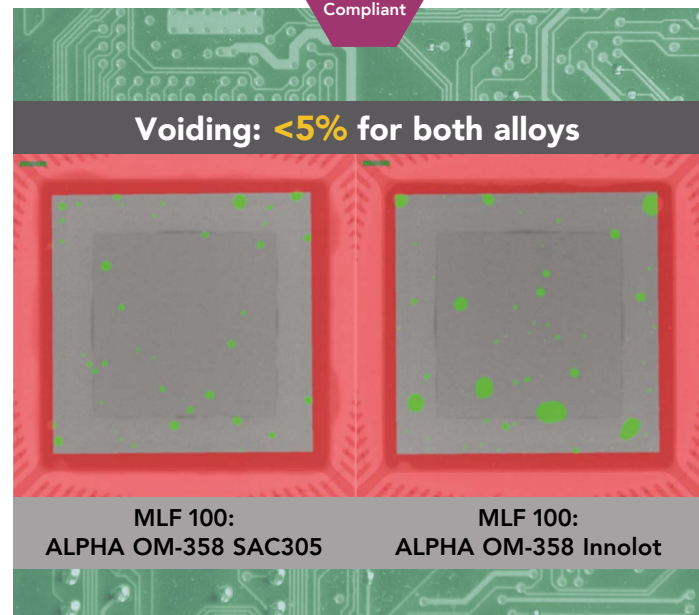
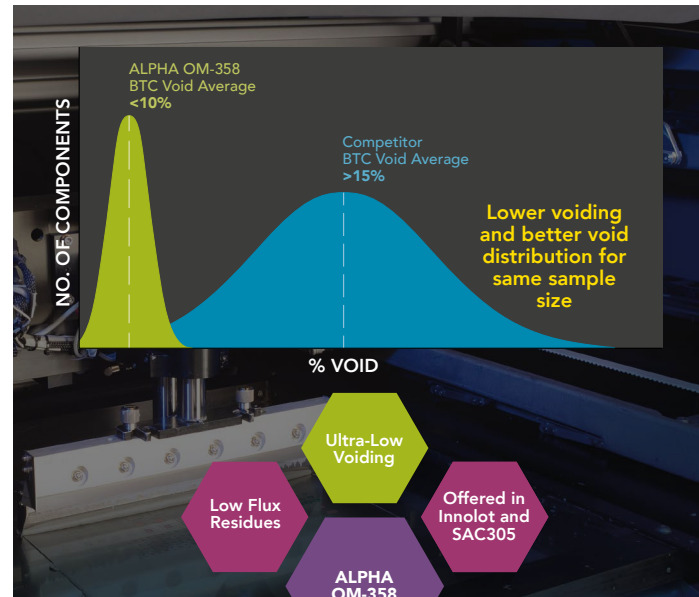
Low Voiding Solder Paste that Offers Superior Control of Void Distribution

ALPHA OM-358 is a lead-free, zero-halogen, no-clean solder paste designed to provide ultra-low voiding performance on all component types including bottom termination components.

ALPHA OM-358 achieves IPC Class III voiding on BGA components and **less than 10% voiding on bottom termination components**. This paste is designed for ultra-low voiding performance with high reliability alloys such as Innolot.

KEY FEATURES

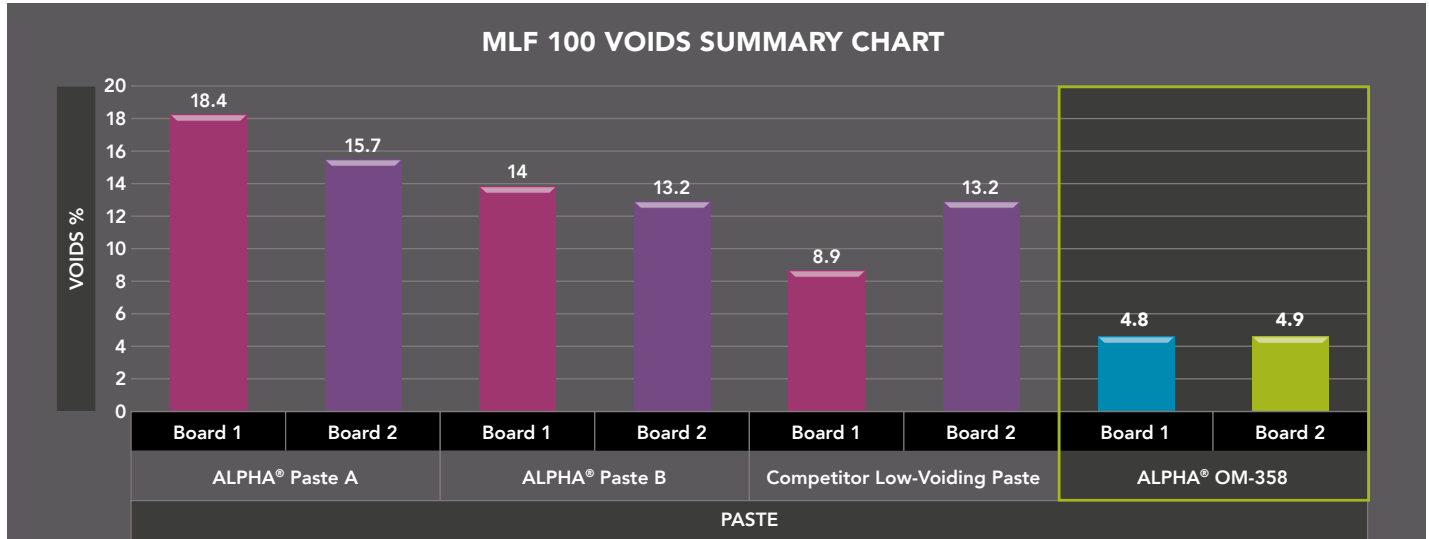
- Ultra-Low Voiding Performance: Increases process stability, thermal, and electrical performance of the most demanding component applications.
- Excellent Electromigration characteristics: Passes J-STD-004B IPC-TM-650 at 100µm to ensure electrical reliability and functionality of fine-pitched components.
- Wide Reflow Profile Window: Enables high quality solderability of complicated, high density PCB assemblies using straight ramp and soak profiles, as high as 150° to 200°C soak.
- Good Random Solder Ball Levels: Minimizes rework and increases first pass yield.
- Good Coalescence and Wetting Performance: Coalesces down to 170µm exhibiting good wetting characteristics and solder joint reliability.
- Excellent Solder Joint and Flux Residue Cosmetics: Easily penetrable and clear flux residue enables good probe contact during quality inspection.



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PERFORMANCE SUMMARY

PROCESS BENEFITS	PROPERTIES	PERFORMANCE CAPABILITIES
Print Process Window	Fine Feature Print Definition	200µm x 250µm (01005 component, Area Ratio = 0.54)
	Tack/Stencil Life	8 hour stencil life
	Print Speed Range	25-100mm/sec (1-4 in/sec)
Reflow Process Yield	Reflow Environment	Air and Nitrogen
	Resistance to Voids	Meets and exceeds IPC Class III requirements
	Random Solder Balls	Passes - IPC J-STD-005A Criteria - Preferred
	Residue Profile	Clear
	Coalescence	Good coalescence down to 170 microns
Electrical Reliability	Flux Residue Characteristics	Clear, soft, and pin-testable
	IPC SIR	Passes J-STD-004B TM 2.6.3.7
	Electromigration	Passes IPC-TM-650 Method 2.6.14.1
Environmental	Classification	ROLO as per J-STD-004B
	Halogen Content	Zero-Halogen



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



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Alpha is a product brand of MacDermid Alpha Electronics Solutions.

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