# Sterling

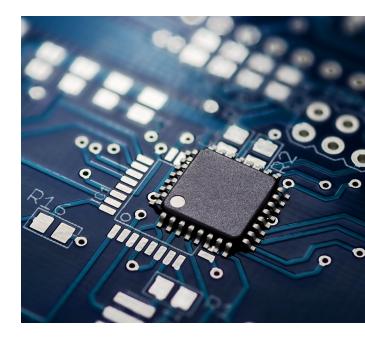
#### Experts Agree. Silver is Better & Sterling Is The Best.

**Sterling** is the MacDermid Alpha Immersion Silver final finish that has been specified by hundreds of fabricators, assemblers and OEM's worldwide. Sterling provides consistent solderability, low contact resistance, process simplicity, and a long shelf life, making it an ideal choice for a variety of final finishing requirements.

Sterling is a tarnish resistant silver finish that delivers exceptional solderjoint strength, touchpad functionality, wire bondability, and in-circuit test compatibility. It offers benefits throughout the supply chain: fabricators receive a versatile and flexible solution that can be applied with either horizontal or vertical equipment; assemblers get a durable finish that performs through multiple heat excursions, and high yields due to complex flux and paste compatibility; and OEMs receive uncontested reliability and service life due to the resulting Cu-Sn solder joint. As immersion silver has become the market leading Pb-free alternative to tin / lead finishes, Sterling is what to choose when only the best will do.

### **KEY FEATURES**

- Specified by fabricators, assemblers, and OEMs worldwide
- Exceptional solderjoint strength, touchpad functionality and wire bondability
- Superior conductivity for ultra-high RF applications
- The clear solution for black pad, tin whiskers and exposed copper

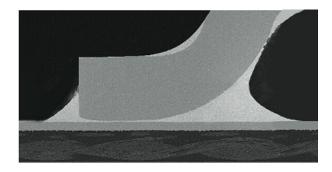




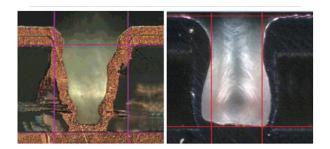


## Immersion Silver For All Final Finish Requirements

From auotmotive to computers, military to communications, MacDermid Alpha's **Sterling** is the choice of OEM's worldwide. Sterling provides highest assembly yields, excellent contact functionality, and predictable solderability with multiple reflows. It is also aluminum wire-bondable, resulting in ultimate assembly flexibility, while its blind microvia plating offers the required technology and reliability levels for complex application.



Sterling consistently delivers strong and durable solder joints. During soldering, the thin silver finish dissolves entirely into the bulk solder, resulting in a reliable and resilient copper / tin solder joint.



Sterling delivers reliable and consistent silver plating in blind microvias, meeting today's complex technological demands, and enabling maximum utilization of circuit board real estate.

## Sterling Superiority

	Sterling	OSP	ENIG	Tin	HASL
Flatness	Planar	Planar	Planar	Planar	Poor
Solderjoint	Cu-Sn	Cu-Sn	Ni-Sn	Cu-Sn	Cu-Sn
Ease of Use	High	High	Low	Moderate	Moderate
Contact Functionality	Excellent	None	Excellent	Moderate	Moderate
Shelf-Life	12 Months	6 Months	24 Months	6 Months	18 Months
High Frequency Performance	Excellent	Excellent	Poor	Moderate	Moderate
Pb-Free Challenges	Drop-in	Temperature Sensitive	Brittle Joints	Intermetallic Growth	Contains Lead

