



Engineered
Materials Solutions

Wickeder Group



CoreLok[®] Clad

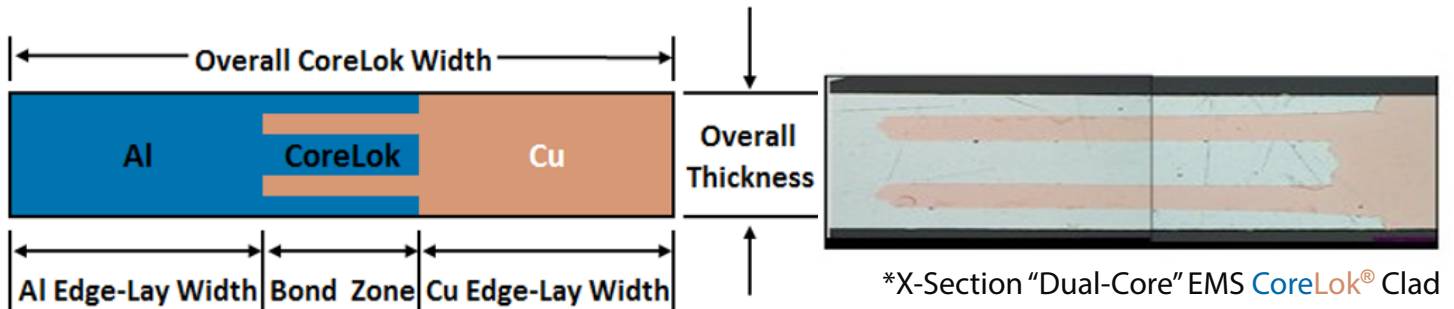
Patent Pending: PPA No. 62/142,753 and PCT/US15/41857

Engineered Materials Solutions has been producing precision rolled Clad materials for over 100 years. Clad Materials can uniquely match any need of a specific product design, allowing design engineers to have their concepts realized. Because of the remarkable process of cold-rolled cladding, it is possible to combine a significant variety of metals in a way that opens the doors of design to an exciting new world of possibilities.

Some metals cannot be joined reliably by traditional welding processes. This includes copper to aluminum which is desired for many battery applications. Edge cladding creates a strong reliable joint that can be used in a variety of applications. The edge clad joint provides not only good mechanical strength, but also good electrical and thermal performance. Unique edge clad solutions can also be created for your specific applications and needs.

// Advantages

- › Superior electrical conductivity
- › High thermal performance
- › Excellent weldability
- › Low cost
- › High mechanical strength

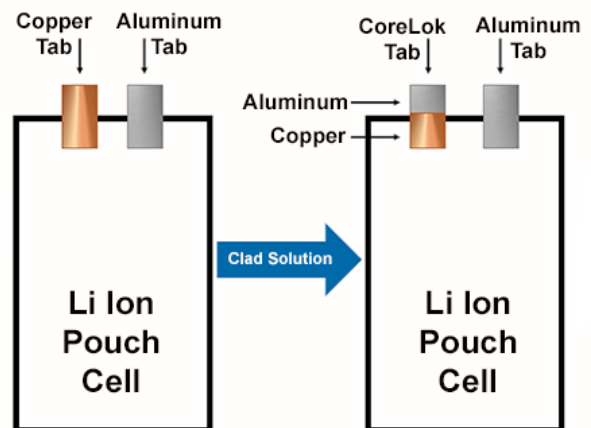


EMS CoreLok® Clad Material Dimensions	Minimum		Maximum	
	(in)	(mm)	(in)	(mm)
Overall CoreLok® Thickness	0.008	0.203	0.125	3.180
Overall CoreLok® Width	0.500	12.70	4.500	114.30
CoreLok® Edgelay Width	0.250	6.350	4.000	101.60
CoreLok® Bond Zone	0.125	3.180	1.000	25.400

*Standard EMS CoreLok® is manufactured in the illustrated "Single-Core" and "Dual-Core" configurations. "Multiple-Core" configurations are available depending on the application.

CoreLok® for Lead Tabs

Copper Aluminum CoreLok® provides a low cost high performance solution for li-ion battery tab joining. The leads or tabs from li-ion pouch and prismatic cells are often configured with one lead of copper and the other lead of aluminum. This creates a challenge for joining copper to aluminum with the busbar. By replacing one of the leads with a CoreLok® lead, the busbar joining can be applied to all aluminum to aluminum connections. This greatly simplifies the welding process.



Engineered Materials Solutions
EMSA
39 Perry Avenue
Attleboro, MA 02703
Phone: +1 508 342 2100
Fax: +1 508 342 2125
E-mail: solutions@emsclad.com

Engineered Materials Solutions
EMSH
600 Valley Road
Hamburg, PA 19526
Phone: +1 610 562 3841
Fax: +610 562 5800
E-mail: solutions@emsclad.com

Engineered Materials Solutions
EMSC
Italian Industrial Park
Baoying, Jiangsu, 225800 PR China
Phone: +86 514 8891 6888
Fax: +86 514 8891 6889
E-mail: solutions@emsclad.com

