

Alkaline Copper Quaternary (ACQ) Q&A

Q: What is ACQ?

A: Alkaline Copper Quaternary, generally abbreviated ACQ, is a type of water-based wood preservative product containing copper oxide and a quaternary ammonia compound.

Q: Why is ACQ pressure-treated wood becoming more common?

A: The Environmental Protection Agency (EPA) banned the use of Chromated Copper Arsenate (CCA) as a preservative in treated lumber in residential and commercial construction in an effort to reduce the use of arsenic and increase safety. Alkaline Copper Quaternary (ACQ) is a non-arsenic wood preservative that has become the treated lumber industry's answer to this EPA requirement.

Q: What effect does the ban of Chromated Copper Arsenate (CCA) have on the metal fasteners used on roof edges?

A: While effective as a wood preservative, ACQ pressure-treated lumber has an increased copper component. These chemicals are more corrosive to common steel according to American Wood Preservers Association (AWPA) test results.

Q: Is the metal that Metal-Era uses safe to use with ACQ treated wood?

A: Metal-Era's metal edges are designed to be safe with ACQ treated wood.

- Any Kynar® painted material in steel or aluminum is chemically inert and can be used in direct contact with ACQ pressure-treated wood.
- The galvanized steel sheet used by Metal-Era is a hot dipped galvanized steel sheet produced on continuous coating line by passing raw steel through a bath of molten zinc. Metal-Era galvanized steel has a G-90 coating (1.25 oz. per square foot), and can be used in direct contact with ACQ wood.
- All Anchor-Tite systems use an extruded aluminum bar to terminate the roof edge. The membrane is covering the treated wood nailers, due to waterproofing issues before the installation of the extruded aluminum bar. The extruded bar does not come in direct contact with ACQ, therefore, there is no reaction.
- Mill finish aluminum should not be used in direct contact with ACQ treated lumber. Spacer materials or other physical barriers are recommended (i.e. rubber, felt) to

- prevent direct contact of ACQ pressure-treated wood and mill finish aluminum products.
- Metal-Era recognizes the importance of using non-corrosive, code compliant fasteners. All Metal-Era Anchor-Tite products carry a Lifetime, 215 MPH Wind Warranty, and therefore require the fasteners to be provided by Metal-Era. Metal-Era has changed all specifications to only provide stainless steel fasteners.

Metal-Era also provides private labeled metal edge products for roof membrane manufacturers around the globe. All fasteners are provided as part of their full system warranty program. All private label specifications have been changed to provide stainless steel fasteners and hot-dipped, ring shank galvanized nails.

Q: What recommendations are there for managing the corrosive effects of ACQ pressure treated wood?

A: For long-lasting roof edges, specify nails which conform to the ASTM A-153 specification for hot-dipped galvanizing. Specify stainless steel screw fasteners and do not allow aluminum to have direct contact with ACQ treated lumber.