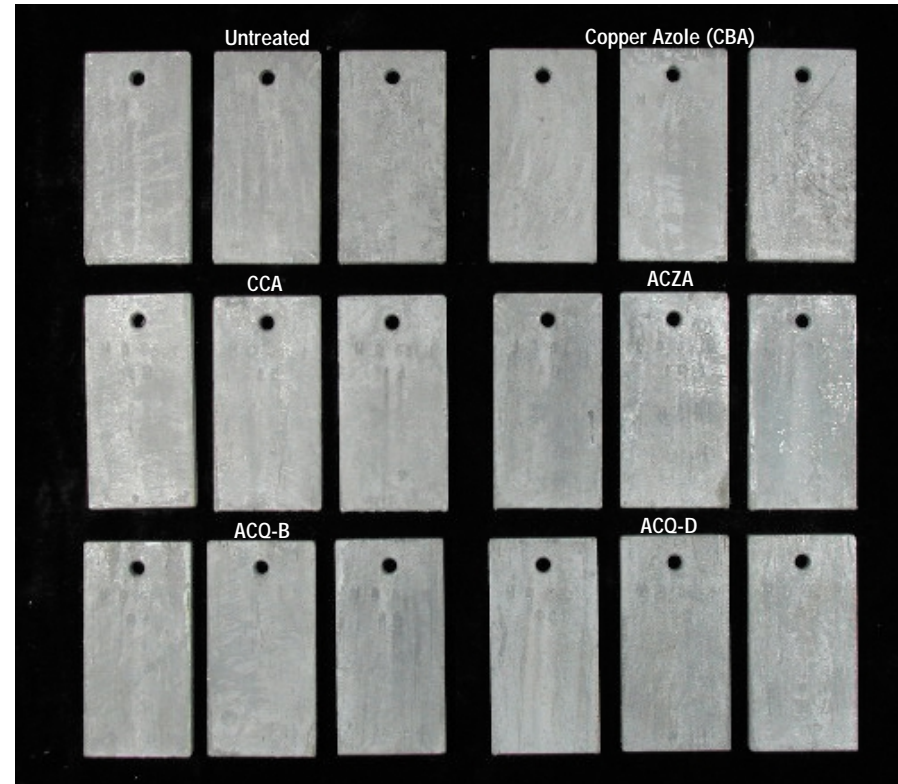
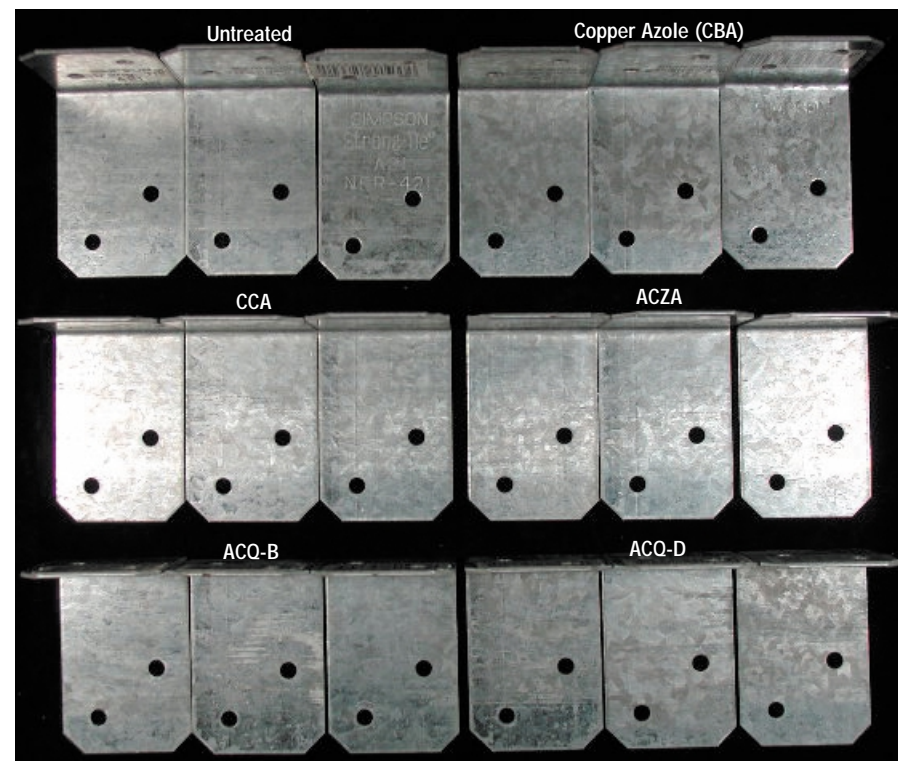











Hot-Dip Galvanized



Electroplated



Metal Fasteners in Use With Preserve® Treated Wood

-  ACQ® is clearly the market leader for pressure applied waterborne non-arsenical wood preservatives in the U.S. and around the world.
-  Wood treated with ACQ has performed well in severe exposure environments around the world for over ten years.
-  Commercial experience with Preserve treated wood demonstrates excellent performance with recommended fasteners in service applications over many years.
-  The primary fastener systems recommended for use with Preserve treated wood are hot-dip galvanized and stainless steel.
-  These are the same fastener systems recommended for CCA and ACZA treated wood by the industry.
-  These fasteners are also specified in major building codes for use with treated wood.
-  G60 Electroplated fasteners are not recommended for CCA, ACZA or ACQ use.
-  Direct contact with aluminum is not recommended for CCA, ACZA or ACQ treated wood.
-  Results from standard accelerated corrosion tests for ACQ treated wood are similar to CCA, ACZA, and CBA treated wood with electroplated and hot-dip galvanized metals.
-  Recognizing that there are many advanced technology coating systems for fasteners available in the market place, CSI has an on-going program to evaluate these systems for their suitability for use with Preserve treated wood.



USE OF METALS IN CONTACT WITH PRESERVE® TREATED WOOD

All preservative treated-wood products represent a potentially corrosive environment to metal fasteners and fittings. Inappropriate use of certain metals for fastening systems can lead to corrosion problems which may limit the life of a structure and ultimately pose safety concerns. Many potential corrosion problems can be alleviated through the use of sound building practices such as:

- Using treated wood with a factory applied water repellent or applying a commercial brush-on product to the wood at least once a year.
- Pre-drilling holes for nails or screws. This minimizes breakage of the protective coating on the fastener from friction and hammer impact during construction.
- Using stainless steel fasteners whenever continual high moisture conditions or saltwater exposure are anticipated.

The potential for corrosion of metals in contact with wood products is an important consideration for specifiers, designers and users. A wide variety of metal fasteners and types of coatings are available, and the environments in which they serve vary considerably. As a result, it is difficult to provide recommendations for every situation that may be encountered. Under certain conditions corrosion of metals in contact with all treated-wood products can occur.

In commercial applications exposed to the elements, and in severe accelerated laboratory exposure trials, recommended fastener systems used in conjunction with ACQ® treated wood provide acceptable performance similar to that experienced with other commercially available treated-wood products. For applications exposed to the elements, standard industry fastener recommendations are identical for all treated-wood products. **Use hot-dip galvanized or stainless steel fasteners.**

Due to the variable nature of fastener systems and the introduction of new coated fastener technologies, researchers at Chemical Specialties, Inc. (CSI), the manufacturers of ACQ preservatives, have conducted extensive corrosion testing on a wide array of commercially available metal fasteners. On the basis of these tests we are able to provide guidelines for designers, distributors and users of Preserve treated-wood products on the types of fasteners that we have found to provide acceptable performance.

While we have attempted to cover as wide a range of products as possible, our tests were not exhaustive. Other brands or products not included in this test may also be suitable. CSI will test the corrosion characteristics of additional products upon request from the manufacturer.

Recommendations for Screws and Nails*

Brand	Coating Type
Swan Secure Nails	Silicon Bronze
Swan Secure Nails	Stainless Steel
Maze Stormguard Nails	Hot-Dip Zinc
Maze Nails	Stainless Steel
Duofast Nails	Stainless Steel
Quickdrive Screws	Stainless Steel
Grabber Gard Screws	Zinc and Polymer
Stalgard Deck Screw – Red	Proprietary
Stalgard Deck Screw – Wood Grain Tan	Proprietary
Stalgard Deck Screw – Silver	Proprietary
ITW Buildex Dec-King Climacoat Screws	Proprietary
Duo Fast Hot-Dip Galvanized Nails	Hot-Dip Zinc
Prime Source Prime Guard Plus Screws	Proprietary
Prudential S/S Screws	Stainless Steel
Mid-America Weatherwise Combo Screws	Proprietary
Dura-Guard Nails and Screws	Proprietary
GRK Climatek Screws	Proprietary

Other metal products in contact with Preserve treated wood, such as flashing, joist hangers and mending plates should be stainless steel or galvanized as required with other pressure treated-wood products. Application of galvanizing by the hot-dip method is superior to electroplating because it generally leaves a thicker layer of protection, therefore hot-dip products can be expected to perform better. Metal components fabricated from aluminum will corrode when in contact with Preserve treated wood.

Stainless steel and hot-dip zinc coated joist hangers and metal plates are available from a number of manufacturers including USP Lumber Connectors and the Simpson Strong Tie Company. Where stainless steel or hot-dip galvanized products are not available, the life of electroplated products can be maximized by properly preparing the metal surface and painting with a rust preventive coating such as Rust-o-leum brand spray paints before installation.

treatedwood.com

*The user of this information should be aware that there can be a great deal of variability among electroplated, hot-dip and polymer coatings, even within the same product type from the same manufacturer. For this reason, CSI cannot guarantee that any fastener will perform the same way in service that it did in our tests.

The information contained herein is intended to provide general guidance only. CSI's recommendations are not intended to imply, guarantee, ensure or warrant in any way that compliance with these recommendations as stated will eliminate corrosion problems and disclaims any and all liabilities in connection with any use of or reliance upon this information. Please consult fastener manufacturer recommendations and local building codes to determine what is best for your application.

AWPA E-12 Accelerated Corrosion Test Results



Tests conducted using AWPA Standard E-12 "Standard Method of Determining Corrosion of Metal in Contact with Treated Wood."



Severe exposure conditions of 120°F at 90% relative humidity.

% Weight Loss of Standard Test Coupons

Treatment	Mild Steel	Hot-Dip Galvanized Steel	Electroplated Steel
ACQ type B	0.358	<0.001	<0.001
ACQ type D	0.326	<0.001	<0.001
CBA-A	0.340	<0.001	<0.001
CCA	0.069	<0.001	<0.001
Untreated	0.023	<0.001	<0.001