

Metal Connectors and ACQ

We must point out an error in the news item “ACQ Takes Its Toll” in your Winter 2005 issue (*Breakline*, Currents section). The article indicates that Simpson no longer recommends ZMAX galvanized framing hardware for use with ACQ lumber in Florida. Unfortunately, this is an inaccurate statement, and it is causing much concern among our customers. Our position on triple-zinc-coated hardware remains unchanged, as is evident on our Web site (www.strongtie.com/corrosion) and in our technical bulletin on this subject (T-PTWOOD05). The recommendations for galvanized, hot-dip, or stainless steel are based upon exposure to the elements as well as the type of wood treatment chemical involved.

The topic of corrosion and pressure-treated wood is a confusing one, and it is important that communications on this topic are as clear and accurate as possible.

We hope that you will alert your readers to visit our Web site, where they can learn more about our research and test results on connectors and fasteners used in pressure-treated wood finishes.

*Richard R. Chapman
National Advertising Manager
Simpson Strong-Tie Company
Dublin, Calif.*

Low = Use Simpson standard painted and G90 galvanized connectors as a minimum.							
Med. = Use ZMAX/HDG galvanized connectors as a minimum. Use fasteners galvanized per ASTM A153.							
High = Use Type 304 or 316 Stainless Steel connectors and fasteners.							
Connector Coating Recommendation - Structural Applications							
Environment	Untreated Wood	SBX/DOT & Zinc Borate	ACQ-C, ACQ-D (Carbonate), CA-B & CBA-A			ACZA	Other or Uncertain
			No Ammonia	With Ammonia	Higher Chemical Content ¹		
Interior-Dry	Low	Low	Med.	Med.	High	High	High
Exterior-Dry	Low	N/A ²	Med.	High	High	High	High
Exterior-Wet	Med.	N/A ²	Med. ^{3, 4}	High	High	High	High
Higher Exposure	High	N/A ²	High	High	High	High	High
Uncertain	High	N/A ²	High	High	High	High	High

1. Woods with actual retention levels greater than 0.40 pcf for ACQ, 0.41 pcf for CBA-A, or 0.21 pcf for CA-B (Ground Contact level).
2. Borate treated woods are not appropriate for outdoor use.
3. Test results indicate that ZMAX/HDG will perform adequately, subject to regular maintenance and periodic inspection. However, the nationally approved test method used, AWWA E12-94, is an accelerated test, so data over an extended period of time is not available. If uncertain, use Stainless Steel.
4. Some treated wood may have excess surface chemicals, making it potentially more corrosive. If you suspect this or are uncertain, use Stainless Steel.

SOURCE: www.strongtie.com/ftp/bulletins/T-PTWOOD05.pdf page 4.

Editor's note: In high exposure conditions, the Simpson Strong-Tie publication T-PTWOODS05 recommends the use of stainless steel hardware (see table, above). While not all of Florida falls under a high exposure

category, "Higher Exposure Use" according to the company includes "exposure to ocean salt air, large bodies of water, fumes, fertilizers, soil, some preservative-treated woods, industrial zones, acid rain, and other corrosive elements."

Coastal Roofing

The article “High-Wind Asphalt Roofing” in your Fall 2004 issue provided excellent and incredibly well-timed information in the wake of this year’s disastrous hurricane season.

Contractors and homeowners in coastal areas — and anywhere else that extreme wind conditions frequently occur — need to be informed that all-new asphalt shingle performance testing standards, along with new classifications for shingles used in designated high-wind zones, have recently been added to the 2004 Supplement to the International Building Code (IBC).

The 2003 code standard cited by the author (ASTM D3161) has been upgraded with the introduction and approval of two new test methodologies, ASTM D6381 and ANSI/UL2390-04, developed over a 14-year period by the Asphalt Roofing Manufacturers Association (ARMA) with input from code officials, wind engineers, the insurance industry, and other allied organizations.

In essence, the new standards will enable contractors, architects, and building owners to choose and install shingles classified according to specified wind zones: Class D for areas with wind

speeds up to 90 mph, Class G for winds to 120 mph, and Class H for extreme winds of 150-mph maximum.

These changes also benefit local building code plan reviewers and inspectors, who until now have lacked specific code guidance in high-wind situations. An amendment to current International Residential Code language regarding the new classifications will appear in the IRC 2005 edition.

Meanwhile, builders, architects, and local code officials seeking guidance on performance requirements for shingles in high-wind zones can find the answers they need in the IBC 2004 supplement.

Your readers also should know that ARMA is their best source for technical information when it comes to asphalt shingles. A wealth of literature on code compliance, proper application techniques for new and replacement roofing, comparing and choosing products, and more is available through our Web site, www.asphaltroofing.org. Most of this literature and technical bulletins on both residential and commercial asphalt roofing may be downloaded free of charge or ordered at nominal cost.

Russ Snyder
Executive Vice President
Asphalt Roofing Manufacturers Association
Washington, D.C.

I read with great interest the Q&A “Steel Framing on the Coast” in the Fall 2004 issue (*Soundings*). It triggered my question/concern about metal roofing: Why would anyone install metal roofing in a coastal environment, given the 100% occurrence of corrosion, rust, and oxidation on every material that contains metal?

Could you evaluate the benefits and drawbacks of metal roofing on the coast? How does it compare with high-wind-resistant

shingles for new residential construction? I am planning work on a barrier island off the coast of North Carolina known as North Topsail Beach.

Frank Francin
High Point, N.C.

Bill Hippard, president of the Metal Roofing Alliance, responds: Metal roofing is, in fact, ideal in harsh coastal climates. Metal roofing materials have a greater strength-to-weight ratio than traditional roofing, and are able to withstand high winds and strong UV rays.

Advanced technologies have improved metal roofing's ability to endure the detrimental elements of our environment. To prevent the formation of rust, a metallic coating made of zinc, or a combination of zinc and aluminum, is applied. The metallic coating bonds to the steel, and a high-quality paint system is then placed over top. This process ensures that the roof is durable and resists rust and corrosion. Many paint manufacturers use southern Florida exposure sites to test their products' ability to defend chalking and fading.

In addition, some metal roofing panels produced by MRA members are made with aluminum, which also works well in a coastal environment.

Another benefit to metal roofing in a coastal environment is its ability to survive high-wind conditions. When installing a metal roof, contractors often use frequent fastening patterns that provide a greater uplift resistance. Furthermore, metal roofing materials interlock, forming a protective barrier that other roofing materials do not provide. This interlocking makes the roof stronger and more resistant to high winds. As a result, metal roofing can meet wind speeds in excess of 120 mph. For more information on residential metal roofing, visit www.metalroofing.com.

Weather-Tight Exteriors

I had a comment regarding the fiber-cement corner Q&A (*Soundings*, Fall 2004).

I've been doing an overlay corner similar to the one shown. Rather than running shims up the corner to form a pocket to slip the siding into, I install a preassembled corner after the siding is installed. I let all the fiber-cement siding trail off the corner and use a carbide scribe to snap-cut each course about 1/2 inch short of the corner. Once the corner is laced up, I apply the corner board and nail it through the butt line of courses every 16 inches.

These full overlay corners are highly

water-resistant when the housewrap is double-wrapped similar to the drawing on page 40 of the same issue (Figure 1, “Wrapping It Right”). They require no caulking, and they permit water that does enter to drain back out at the bottom.

The only drawback: Wasps occasionally make nests between the corner board and siding laps.

Mike Guertin
East Greenwich, R.I.

I have just finished reading the Fall 2004 issue of *Coastal Contractor*, and I was pleasantly surprised to find that it

actually addressed issues that we at Yankee Housewrights deal with daily. Our business is located on Conanicut Island in Rhode Island's Narragansett Bay, and it hardly gets more coastal than here.

I often find myself talking to clients and even to our lead carpenters about “sideways rain” and “unimaginable wind loads,” only to see their eyes glaze. Now I can produce your publication and show them that I am not all wet after all. I will be passing this issue on to our leads this afternoon.

Robert Van Cleef
Jamestown, R.I.