

Architectural Shutters

Historically correct opening protection

In the few hurried hours before a storm lands, there's not much time to put shutters on a house, so homeowners who go this route better have the shutters handy. That's a lot easier with **Atlantic Shutter Systems**. Fully compliant with the Florida 2000 Hurricane Code to withstand sustained winds of 140 mph, each of these composite panels is custom-manufactured to the exact window opening size. The shutters come with a vertical storm bar that can be installed in a matter of minutes from inside the home, says the manufacturer, and are available in a range of "architecturally correct" styles. They also come with fitted clear acrylic panels that can be quickly screwed in place over the shutter louvers to prevent water penetration. For more information, contact Atlantic Shutter Systems, 877-437-0608; www.atlanticshuttersystems.com.



Fail-Safe Decks

Stringer, ledger, and railing anchor resists structural collapse



DECKLOK

DeckLok — a deck bracket system designed to bring deck structures into compliance with IRC 2000 safety requirements — redirects the loads on stair stringers, ledger boards, and railing systems, changing connections that depend on withdrawal strength into more resilient shear connections. On stair stringers, DeckLok reinforces the connection between the stair stringer and the deck frame to reduce the possibility of the stairs shifting away from the deck. For

ledgers, DeckLok anchors the ledger boards to the floor joists of the house to provide up to 4,000 pounds of resistance to deck pullout and collapse. And when added to each newel post on a deck railing, a single DeckLok bracket reportedly provides a 500% increase in strength over nails alone. This hardware is available in "ACQ compatible" galvanized coating and in stainless steel. For more information, contact DeckLok Bracket Systems, 866-617-3325; www.mtdecklok.com.

Advanced Treatment

Borate-based wood preservative for engineered lumber



FRAMEGUARD XP

Arch Wood Protection, makers of Wolmanized treated wood, offers a borate treatment dubbed **FrameGuard XP** that can be used to treat OSB, parallel strand lumber, laminated veneer lumber, and wood I-beams, providing effective resistance to mold, termites, and decay. The FrameGuard XP coating is applied at a plant, lumber mill, or distribution yard, where the quality of coverage can be more precisely controlled than at a job

site. The solution, identified by a blue dye mixed in with the active ingredients, is a water-based combination of EPA-registered components that provides broad protection against mold and wood-destroying organisms. After coating, the wood must be protected from rain in order to retain its preservative qualities. For more information, contact Arch Wood Protection, 866-789-4567; www.wolmanizedwood.com/frameguard.shtml.

Max Headroom

Ladder attachment affords comfort and safety

Working at the top of a ladder has never been fun, but at least it can be a little safer. The new **Ladder-Max** standoff helps stabilize a ladder at the top end while providing a 19-inch standoff from any side wall or roof. This not only provides a more natural angle for executing high-wire work, but also

prevents damage to shingles, gutters, and siding from the ladder itself. The Ladder-Max structure bolts across two full steps, forming a stable wedge between the upper work surface and all types of articulated extension ladders. For more information, contact Ladder-Max, 866-772-4223; www.buyladder-max.com.



LADDER-MAX

Foundation Fixer

Carbon-fiber straps provide reinforcement to damaged foundation walls

Foundations repairs just got a lot simpler with the **Reinforcer**, a carbon-fiber system designed to reinforce the interior “tension” side of bowed or cracked foundation walls. The carbon-fiber straps measure only 4 inches wide and are as “thin as a dime” at about .045 inch thick but reportedly have a tensile strength of more than 350,000 psi, making this material 10 times stronger than steel. Reinforcer strips come in 250-foot rolls and can be cut to length with an abrasive cut-off saw using a jig to hold the thin material in place. The spacing

of the strips depends on the loads, as specified on engineering design charts prepared by the manufacturer. Block walls must be cleaned of all paint and debris prior to installation. The Reinforcer strips are then applied with a structural epoxy paste. Removing excess epoxy off the strips and filling any remaining cracks with epoxy completes the installation. For more information, contact Nationwide Reinforcing, 877-333-6723 or 614-348-0323; www.nationwidereinforcing.com.



THE REINFORCER

Flexible Perm Rating

Drying potential of walls adjusts to humidity conditions

CertainTeed's **DryRight** fiberglass insulation is faced with the company's MemBrain film. Molecular-scale pores in this film open during the cooling season, when the vapor drive is from outside to inside, allowing moisture vapor to pass through and walls to dry more easily. When conditions change and the vapor drive moves from inside to outside during the heating season, the smart film's

pores close to block vapor transmission. This process allows closed building-envelope systems to increase their drying potential with seasonal climatic changes. Available in batts and rolls in R-13 and R-19, the DryRight batts feature a friction-fit design and can be installed without staples. For more information, contact CertainTeed Corp., 800-233-8990; www.certainteed.com.



CERTAINTEED DRYRIGHT

Green to the Core

Structural panels made from renewable wheat straw offer thermal performance

The wolf that huffed and puffed would have been surprised if one piggy had used these strawboard panels. Made with a wheat-straw core sandwiched between OSB and wrapped in TimberStrand, **Agriboard panels** meet the IRC requirements in high-wind zones, provided the structure is designed with a continuous load path and all bearing, blocking, and fastening schedules are met, as required for any structural panel. Available in 4³/₈- and 7⁷/₈-inch thicknesses and in lengths from 8 to 24 feet, the panels meet one- and two-hour fire ratings, respectively, and are treated with borates to resist termites and

other insects. The manufacturer claims a “dynamic” R-value of 13 and 25, which is higher than a typical “static” R-value, owing to the minimal airflow through the panels, reduced thermal bridging, and the effect of thermal mass (the latter of which only significantly increases thermal efficiency in climates with large daily temperature swings). The bottom line, says the manufacturer, is that 4³/₈-inch-thick panels approach the thermal performance of an insulated, stick-framed 2x6 wall, while the thicker panels exceed it. For more information, contact Agriboard Industries, 866-247-4267; www.agriboard.com.



AGRIBOARD

Retrofit Resistance

Garage-door brace temporarily reinforces vulnerable opening



SECURE DOOR

The **Secure Door** brace, made to reinforce conventional garage doors against 180-mph winds, is designed for do-it-yourself installation, but the manufacture admits the installation is involved enough that many homeowners hire a remodeler to do the work. The initial installation takes about 45 minutes. After that, the telescoping aluminum pole is removed until needed. While

there are other ways to brace a garage door, the Secure Door is the only retrofit kit with an evaluation service rating that meets Florida Building Code requirements. Keep in mind the door will still not be impact resistant and may require additional reinforcement to prevent internal pressurization. For more information, contact Secure Enterprises, 800-483-3341; www.securedoor.com.