

Panels for Your Palace

By Mark Robins, Senior Editor

High-end metal panels are giving residences fascinating façades

Omega-Lite panels offer a highly decorative, strong and durable surface finish for exterior wall surfaces. (Photo courtesy of Laminators Inc.)



Duane Hagadone's 32,000-square-foot mansion in Palm Desert, Calif., gets its unique look from its custom gold crystal finish titanium fascia and 20-ounce TECU Oxide coated standing seam panels. (Photo courtesy of MG McGrath Inc.)



Depending on the desired effect, designers may choose from a variety of materials including copper, stainless steel, coated aluminum or coated Galvalume exterior metal wall panels for luxury residences. (Photo courtesy of Metal Sales Manufacturing Corp.)



Metal offers endless design possibilities in the residential market, providing far more benefits than traditional construction materials and methods. (Photo courtesy of Kovach Building Enclosures)



Owners and architects of high-end or luxury residences typically want walls that create an image of refinement and art, and they can attain this with metal panels. (Photo courtesy of Tuschall Engineering Co. Inc.)

Metal panels are finding themselves on residences with greater frequency and contributing to aesthetically pleasing high-end designs. Today, many diverse types of exterior metal wall panels in the luxury residential market offer a vast selection of profiles, finishes, panels, colors, composite panels and rollform systems providing endless options.

"Owners and architects of high-end or luxury residences typically want walls that create an image of refinement and art," says James C. Tuschall, president, Tuschall Engineering Co. Inc., Burr Ridge, Ill. "Usually the first views of any home are of the façade and metal has great flexibility to achieve a statement."

Jessica A. Oliff, marketing communications manager at Laminators Inc., Hatfield, Pa., says these unique panels are designed to maintain a consistent and long-lasting modern look. "With a variety of standard colors and finishes, coupled with innovative, high-quality installation systems, design options are limited only by the builder's, architect's, building owner's or homeowner's imagination."

Design possibilities

Tuschall sees the design possibilities as being endless in the residential market, providing far more benefits than traditional construction materials and methods. "There's the ability to create geometric and 3-D shapes, hard or soft appearances, and the lightweight flexibility will also save money on framing," he says.

"Natural metals can be formed into a variety of shapes, including flat seam shingles, flush panels, corrugated panels and even single-lock standing seam panels are used as wall panels."

Dave Polk, general manager of Metal Sales Manufacturing Corp. in Fontana, Calif., says for high-end residential applications, both exposed and concealed fastener designs are available. "Depending on the desired effect, designers may choose from a variety of materials including copper, stainless steel, coated aluminum or coated Galvalume."

Zinc, not a traditional solution or option for residential building materials, is being used more due to its easy installation, sustainability, durability and aesthetics. "It is gaining popularity as a great resource for residential building projects," says Chandra Hester, marketing assistant, Umicore Building Products USA Inc., Raleigh N.C. "It

is easily incorporated into any design, either as an accent or as the main feature of the home. It is a wonderful option for both interior and exterior façades, and can be used not only as wall paneling, but also as a roofing solution, for soffits and for countertops."

Umicore has a VMZ flat lock panel system comprised of factory-formed panels that make residences look unique. "Rectangular-shaped panels interlock into each other on the four sides and are then secured with concealed fasteners and clips to offer a simple yet elegant cladding solution that provides a longitudinal flat seam," Hester says.

Many attributes

In addition to a sleek appearance, high-end panels can also help homes' energy efficiency. Because many residential wall panels are listed with Energy Star and reflect light and heat, they reduce the cooling needed for a home. "Wall panel systems that are thermally efficient are a great choice for folks looking to reduce their monthly utility bill and have a great-looking home," says Stephen E. Kovach V, vice president, Kovach Building Enclosures, Chandler, Ariz. "Metal cladding systems shed heat almost immediately when the sun goes down in the summer and don't transfer cold temperatures inside during the winter. They come in all shapes and sizes. If you can dream it up, there's more than likely a way to make it happen."

Metal panels' toughness is a big plus for residences. They provide longevity and minimal maintenance. "The major benefit to the homeowner by selecting exterior metal wall panels versus other materials is the durability of commercial grade metal," says Dave Rassmussen, business development manager at Maplewood, Minn.-based MG McGrath Inc. "Metal exteriors not only have a longer life span than other materials, homeowners can get superior finishes and details on metals selected."

While many exterior materials are difficult and time consuming to install, installing exterior wall panels have become easier and quicker. "VMZINC offers a number of materials that have been created with the specific purpose of cutting down on installation time," says Hester. "VMZ Adeka, VMZ Dexter and the [Holland, Mich.-based] Dri-Design systems were designed as complete, 'out-of-the-box' systems, because the panels and fasteners are shipped together,

meaning that installers have all of the materials for installation on hand in one shipment."

Different application techniques provide different options for ways in which metal wall panels can be installed, all depending on the type of aesthetic and technical solutions that the owner or builder have designed for the building. "Many panels have the ability to be installed horizontally or vertically, they are durable and aesthetically pleasing, and because they are panels, can typically be installed more quickly and easily than other external wall materials that are composed of many smaller parts," Hester says.

Polk says it is highly recommended that seasoned design experts and installers be utilized when specifying metal wall solutions. "Sub structures and flashing will vary depending on the product configuration," he adds.

Oliff says that exterior wall panels in the luxury residential market can even be combined with other cladding materials, such as glass and various masonry materials. "Laminators Inc. now offers Designer and Natural Series finishes for all of their aluminum composite material panel products, which feature patterned and anodized aluminum finishes," she says. "Homeowners, building owners, architects and builders can now choose from natural-looking wood grain and stone façades for interior and exterior projects that may require a subtle, sophisticated touch."

Coming soon on a house near you

Even more developments in the residential metal panel industry are coming. Rassmussen predicts new panel designs, finishes and colors (including metallic and chameleon-like colors/finishes) are on their way. "Mechanical finishes have also enhanced the patterns that can be incorporated on the panels. Incorporating all these possibilities gives the homeowner an infinite selection of choices when choosing which metal, color and finish for the exterior of their homes," he says. "All these options offer each homeowner a distinctive and fascinating façade for the exterior of their homes."

Precision 3-D scanning and imaging devices will be able to produce convex and concave curved panels. Tuschall anticipates longer-lasting paint finishes and more exotic colors will further evolve and improve metal panels in the luxury market.