Powder Coatings

The look and shape of the future:

By Craig Martin

he future is often hard to predict, but one thing is certain - powder-coated wood has the look and shape that designers and architects will use to define quality and a health conscious lifestyle of the future.

Powder coating involves the use of an electrostatic charge, both positive and negative, which offers tremendous adhesion in the bond and incredible strength. The process of powder coating metal has been around for many years. Metal has properties that make it a good conductor of electricity; whereas wood does not. Powder coating on metal was quickly accepted into the market, but powder-coated wood has taken longer to master due to this challenge of electrostatic conductivity. MDF has now been custom formulated for powder coating with approximately 8 percent moisture content. The powder-coating process requires heating the MDF prior to coating to bring the moisture to the surface; as a result, this moisture serves as the source of electrostatic conductivity.

Powder-coated wood is capable of producing some of the highest quality and extremely durable wood finishes. The process of powder coating on MDF requires substantial investment in technology, equipment and expertise. The future is now for a preferred wood finish whenever the requirement is for durability, moisture resistance, chemical/stain resistance — or where the benefits of green are desired.

This type of finish is gaining popularity throughout Europe, and most recently growth in the United States has been led by companies such as Herman Miller (office furniture) and ClosetMaid. The goal: to produce a finish that exceeds the performance specifications of liquid finishes and many laminates.



Powder coatings have a texture comparable to baking flour.



Powder-coated wood is limitless in terms of designing shapes and profiles when compared to laminates because there is no need for edgebanding. When manufacturers want to use curves, elegant edge profiles, cutouts, embossed logos or contoured surfaces, then powder-coated wood is a great choice because of the design flexibility. The final product gives a consistent, professional and cus-

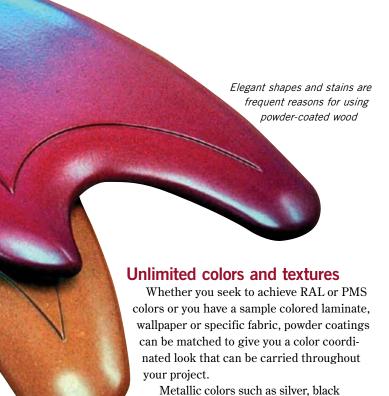
tomized look.

The biggest challenge for powder-coated wood to overcome lies with designers and architects who limit their use of curvilinear shapes for those shapes that are designed to work primarily with melamine and laminates. It is only a matter of time before architects and designers understand the innate qualities and features of this type of durable, consistent, brilliant finish.



The powder from the photo (left) applied to wood components.

Powder-coated wood



chrome, gold, copper, platinum and brass are available in powder. Plus, these metallic colors, when combined with other colors, provide a ham-

mertone appearance which is very appealing in today's fashionable color palettes.

If you prefer a more traditional stained finish, powder-coated wood provides choices such as cherry, walnut, maple or whatever



Powder-coated wood provides a very upscale, elegant appearance, such as high gloss black similar to a baby grand piano or metallic silver.

variation of stain color preferred, yet it can be more durable than what a liquid finish would yield.

What about a multicolor look, such as a splash of spackling on black, white and gray or any other combination of colors to give that multicolored appearance? Is your preference for the look of a solid surface such as granite? No problem; you can have it, and better yet, you can get it in a smooth or textured finish depending upon the final look you want to achieve. Is slate your style? Do you want blue, black and gray? Create whatever color you can dream up.

Another choice is whether you want a matte or glossy finish. For example, do you like that beautiful black glossy finish of most baby grand pianos? It can be accomplished for your project as well.

Because powder coating on wood is applied using a 5 to 8 mil



Write in 20 on Inquiry Card

Coating Thickness Gages for measuring paint, varnish, lacquer, etc. on furniture, flooring, cabinetry and more NEW Design and Features Affordable Non-Destructive 800-448-3835 or www.defelsko.com Ogdensburg, New York USA • Tel: 315-393-4450 Fax: 315-393-8471 • Email: techsale@defelsko.com

Write in 21 on Inquiry Card



Write in 22 on Inquiry Card

Powder Coatings

thickness as compared to a liquid finish that is typically less than 1 mil thick, it creates a thicker and more durable finish for longer life and use of the product.

Green and healthy lifestyle

A great feature of powder-coated wood is that it has no VOCs or dangerous chemicals. Plus, because powder coating totally encapsulates the part, there is no need to use PVC edgebanding, which poses many health concerns and is currently experiencing growing public pressure to be eliminated.

MDF manufacturers, such as SierraPine, use recycled board and have formulated a formaldehyde-free board for the marketplace. SierraPine uses recycled material so it is very green friendly and in construction projects this is great for obtaining LEED points with the U.S.



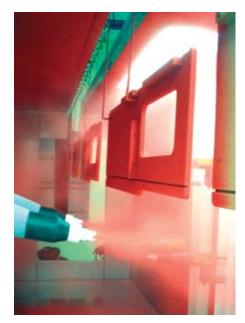
Elegant cutouts for holding frosted glass, detailed profile edges, and a variety of other shapes make powder-coated wood a great product.

Green Building Council (USGBC).

There is an antimicrobial additive that can be used in the powder that is patented by DuPont. It can be used in the powder which prevents the spread of bacteria on the powder-coated surface because it removes 99.9 percent of the surface bacteria with active ingredients that last for many years. Plus, the finish is seamless with no crevices for bacteria to hide and foster. This additive is a great option for surfaces used in healthcare, day care, schools or any environment where bacteria can be a threat and surfaces come in contact with humans.



Unique colors and textures give great design appeal, such as hammertones, wrinkled finishes, granites, etc.



Powder coating wood requires substantial investments in state-of-the-art technology and expertise.

The future is now

Some things in life are predictable, and the rapid growth of this great finish is one of them and has been perfected by a few industry leaders. It is expected these leaders will pave the path to the future.

Ed. Note: Craig Martin is president of BTD Wood Powder Coating, manufacturer of powder-coated wood components. He can be reached at cmartin@btdwoodpowdercoating. com or by phone at (218) 828-4144.



Write in 23 on Inquiry Card



Write in 24 on Inquiry Card