

# Smile, It's 3-D Laminate!

## EASY-CARE DENTAL OFFICE FIXTURES SET MIDMARK APART

by KENN BUSCH



**Y**ou think you hate being in a dentist's office? How do you think the casework feels?

Few environments are more demanding on their surfaces than dental offices. Frequent traffic, medical tools and constant cleaning with harsh compounds take their toll on both vertical and horizontal surfaces. That's why Midmark Corporation has embraced 3-D laminates not only for its dental office furniture, but its medical and veterinary fixtures as well.

"In healthcare environments, they need a surface that's easily cleaned to keep bacteria and viruses from getting a foothold on the surfaces," says Scott Strait, engineering manager for Midmark's Dental Casework Products. "So when we look at a material one of our biggest prerequisites is that it will last in the environment and is easily cleaned."

Although Midmark owns its own casework facilities that manufacture with HPL and TFM (thermally fused melamine) surfaces, it outsources 100% of its 3-D laminated components from R&R Fabrications. R&R has long specialised in the membrane-pressing technology – a unique combination of the right panels, adhesives and surface materials – required to produce quality, value-added panels.

"We've been using 3-D laminated components from R&R for 20-plus years because it allows us to eliminate the front seam from the edge of the cabinets. You don't want any fluid leaking into the core of the board through those seams – one, to prevent contamination, and two, so you don't have to worry about the core swelling from moisture involved in the extensive cleaning in these environments."

Midmark specifies MDF panel cores because of the

material's smoothness and consistency. 3-D laminate surfaces will "telegraph" any imperfections in the panel surface, leading to a rough or "orange peel" effect, particularly where details are machined into the panel's core.

The durability of 3-D laminated components has been impressive, Strait says. "We have an excellent service history; the replacement rate for doors with 3-D laminates is very, very low. I've been in installations where our product has been in use for many years, and it's still holding up well. You don't see the chipping and scratching of HPL like you see on some of our competitors' products. Material-wise, for the environments we're working in, this an excellent material."

R&R has also helped develop new door designs that have given the company a significant competitive advantage.

"In dental offices, cleaning of the operatory is always a challenge, particularly when cleaning traditional handles and pulls. R&R machined an integrated handle into the MDF board and applied the 3-D laminate over the panel and into the handle cavity. We did this in 1998 and no one else has yet used that concept, which gives us a great selling point with our customers.

"This is a highly competitive market, and we're still the only ones using thermofoils [3-D laminates] for panels. It's the ideal material for the environment. Others have held back because of the limited colour range, which has been growing over the last few years. And suppliers are coming out with more and more realistic woodgrains – we work with Renolit, Cova and Omnova – and we're refreshing our line to keep up with the latest trends in design," Strait says.

"One thing I'm impressed with is that 3-DL suppliers are aligning themselves more with the TFM people to come up with matching colour schemes where both materials carry the same colours and patterns. That's a direction we're very interested in, to be able to match 3-D laminates processed here with casework produced in our other plants.

"Some matches are better than others. Some of our products use HPL for postformed edges, and we are looking for some exact 3-DL matches to start replacing some of those HPLs. Long-term, it would be a nice reduction in materials cost – HPL is too expensive to use in applications where we don't need that level of durability – and that would be a huge



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benefit for us.”

These material match-ups will help Midmark service a new trend in “upscale” dental offices. Most of the market specifies metal cabinets (with TFM, HPL or 3-D laminate doors and tops).

“But some dentists want to make a better, longer-lasting impression, so they’re making their operatory suites more homey, warm and inviting with TFM panel casework instead of metal. Exact matches in 3-D laminates helps us create very elegant woodgrain fixtures that can hold up to the rigors of use in that demanding environment.” **PFA**



## 3-D Laminating Specialists – Just What the Doctor Ordered

Roger Ranly, owner R&R Fabrications, says increased acceptance of 3-D laminates in the medical, retail and other markets is based on several factors – stunning realism in woodgrain designs, high durability, and the design flexibility of components made with 3-DL and shaped or contoured MDF panels.

The smooth, seamless edges offered by 3-DL components first caught the eye of the medical fixture manufacturers several years ago because of the advantages they offer should they come into contact with blood- or fluid-borne pathogens and viruses like HIV/AIDS.

“With 3-DL, every surface is sealed,” says Ranley. “There’s no edgbanding to come loose and no brittle laminate surfaces to chip or break and expose raw panels, which is a disaster should it become contaminated. There’s no way to clean it. 3-DL forms a complete seal, and

stands up to the chemicals used in the constant cleaning of these surfaces.”

3-DL suppliers are offering increasingly durable surfaces, Ranly says, singling out suppliers Omnova and Kydex.

“Kydex has been in the medical and dental industries for years. If you go to a hospital, the wall coverings and railings are often Kydex. It’s very durable, comes in a broad range of colours, and has a full slate of data sheets detailing the different code and specification criteria it meets.”

Beyond medical applications, R&R is seeing a demand for 3-D laminated components grow elsewhere as well.

“The softer look also drives specification in several different markets. We’re seeing it really catch on in retail, as designers become more educated about the product. The range of different designs is also a great selling point for our customers, and we find ourselves running from eight to 15 different colours in any given day.”

Switching designs that often would be impossible without two Smartech motorised roll storage rack systems feeding its Wemhoener and Globe press lines, Ranly says.

“If you have to roll out and pull 10 yards for just five different rolls a day without a system like this, you’re talking about hours of handling alone. This system measures and cuts for you, makes it very easy and very efficient for us to meet our customers’ expectations.”



ICA Group

## Innovative water-based coatings for wooden chairs

Italy-based ICA Group, has always been committed to conducting cutting-edge research with a view of developing innovative products that provide value-added responses to the specific requirements of each sector in which coatings are used. In particular, ICA Group has focused on perfecting its advanced solutions for manufacturers of wooden chairs.

The company said that its consolidated experience in the formulation of coatings that have low levels of environmental impact has enabled it to put itself forward as the ideal partner for manufacturers of wooden chairs, at a time when the market is demanding that quality be combined with measures to safeguard not only the environment but also the health of the user.

ICA Group has thus created a range of the highest quality water-based products targeted squarely at meeting the special coating needs of wooden chairs. Thanks to their versatility, these coatings can be used within mixed cycles (ie in combination with solvent-based products), thus allowing users to replace solvent-based coatings gradually, having seen first-hand the advantages afforded by water-based technology.

It has put together three fully water-based coating cycles – one transparent and two lacquered cycles (which differ in the type of base coat used: white or transparent) – that are intended for use in the wooden chair-manufacturing industry.

The three coating cycles developed by ICA Group represent concrete examples of how the company has the capacity to customise its products in response to the specific manufacturing requirements of its clients, combining excellent appearance

with reduced environmental impact. The technology of the company's water-based solutions has now matured to such an extent that the performance of these coatings is equal, and sometimes even superior, to that of solvent-based coatings, both in chemical/physical terms and from an aesthetic perspective.

As such, the high performance now delivered by these coatings in strictly operational terms (drying times, ease of sanding, etc.) means that industrial processes need no longer be compromised by the use of water-based coatings.

To be successful in today's marketplace, ICA Group is convinced that it is now essential to ensure that products (such as wooden chairs) are fully natural and eco-sustainable. The substitution of solvent-based coatings with water-based equivalents is a factor that can be competitively leveraged, since the properties of water-based coatings translate into values that are now perceived as vitally important by producers and end users.

ICA's new coatings are distributed directly in India. **PFA**

