

## R & R Fabrications

Seamless membrane pressed thermoplastic sheet provides durability and attractiveness to medical carts and cabinets

### Midmark Corporation

### Cleanability, Chemical Resistance and Durability

### Production

Versailles, OH - When it comes to infection control in a medical office, a lot depends on the cleanability of the work surfaces and equipment, which is why Midmark Corporation, a supplier of healthcare products, switched from laminate tops to membrane pressed surfaces of KYDEX<sup>®</sup> thermoplastic sheet on its medical carts and cabinets.

"Our customers require work surfaces that will not absorb spilled fluids and chemicals, and can be easily disinfected," says Jon Wells, director of marketing for Ohio-based Midmark.

"Extreme chemical resistance is also critical," says Scott Strait, Midmark's chief engineer. "Not only is there a potential for spills, but the surface is disinfected multiple times each day with harsh cleansers. KYDEX<sup>®</sup> 150 sheet exhibits greater chemical resistance than a typical laminate." KYDEX<sup>®</sup> sheet also resists exposure to lipids present in body fats and gamma radiation, unlike many other plastics.

"The melamine and laminate surfaces we've used in the past would show scratches and wear after only a brief time in the field, something we haven't experienced with our countertops membrane pressed with the KYDEX<sup>®</sup> sheet product. They are considerably more durable," explains Wells.

The proprietary sheet exhibits Notch Izod Impact Resistance of 953 J/m (18 ft-lbs/in) at 23°C (73°F), tensile strength of 42 N/mm<sup>2</sup> (6100 psi), and Rockwell hardness of 94 (R-scale). In addition the colour of KYDEX sheet is integral, unlike that of high-pressure laminates, rendering gouges and scratches inconspicuous.

Membrane pressing allows the KYDEX<sup>®</sup> sheet to conform to all top and side surfaces of the MDF substrate including compound curves, sharp edge profiles, rounded corners and undercut edges.

Midmark outsources membrane pressing of its parts to R&R Fabrications, St. Henry, OH. Prior to membrane pressing, the MDF substrate is routed to create detailed edge profiles and compound curves. Machined components are then coated with a heat-activated adhesive and placed on a membrane-pressing table. KYDEX<sup>®</sup> 150 thermoplastic sheet is then placed over the components, and the table is slid into a chamber that heats the sheet and activates the adhesive. A vacuum from below and pressure from above forces the softened sheet onto all top and side surfaces of the MDF core, after which the parts are removed, cooled and trimmed, ready for assembly.

The overall appearance is "very warm and less institutional," says Wells. "With a steel structure and membrane pressed components we offer a solution that is both attractive and functional."

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*Midmark Series 4702, a routed MDF substrate that is membrane pressed with KYDEX thermoplastic sheet.*



*KYDEX thermoplastic sheet provides the Midmark Series 445 with a durable top surface.*



*The Ritter Series 340 membrane pressed with KYDEX thermoplastic sheet, offers a more stylish appearance.*

**KYDEX**<sup>®</sup>

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