Thermoplastic Alloy Aids Surgical Fluid Collection

To improve the safety and economics of bodily fluid disposal, a medical supply company has developed two portable collection units: the High Fluid Cart and the Safety Station. Up to 48 liters of bodily fluids are pumped into the High Fluid Cart's two reusable polyethylene canisters during surgery and then, once drained, the canisters are transferred to a tub in the Safety Station where they are cleaned and sterilized for reuse.

The outer portion of the cart's lid is pressure-formed and adhesive-bonded to a vacuum-formed inner lid and then sealed with a gasket. The Safety Station is designed with a vacuum-formed tub. Fabrication of these components is conducted by Polyfab Plastics & Supply in Springfield, MO. For thermoforming of the parts, the company uses a proprietary thermoplastic alloy called Kydex T sheet, produced by Kleerdex Co. in Bloomsburg, PA. Don Stiger, head of engineering at Polyfab says, "The Kydex T alloy offers the physical properties, chemical resistance, and formability needed to meet the requirements of the unit."
According to the manufacturer, Kydex T sheet exhibits greater impact strength, scratch resistance, and extensibility than flame-retardant ABS. It's also less hygroscopic and carries a fire rating of UL Std 94 V-0/5V. In addition, it is said to be more chemically resistant and, therefore, unaffected by bodily fluids or the repeated cleanings and sterilization that the Safety Station undergoes.
Information: www.kydex.com.

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