

Bombardier

KYDEX® sheet makes stronger, greener route for the Las Vegas Monorail

The Las Vegas Monorail was built in 1993 as a joint venture between MGM Grand and Bally's Hotel, with the one-mile transportation system linking the two hotels. Soon, the idea expanded to include other locations along the Strip and in 2004, expansion to the current system was completed to include seven stations. In 2010, the Las Vegas Monorail aided in the annual removal of an estimated 2.4 million vehicle miles from Southern Nevada's major roadways, reducing emissions by more than 37 tons of carbon monoxide (CO), volatile organic compounds (VOC) and nitrogen oxides (NOx) over the course of the year. When the decision was made to replace the seats in the fleet by 2012, KYDEX® sheet was a natural choice to continue this green legacy.

The Company

Bombardier Transportation is a global leader in delivering innovative products and services that set new standards in sustainable mobility. It's one of the world's largest transit system manufacturers experienced at turnkey operations and is known for its 4-cornerstone approach to developing technology: energy, efficiency, economy, and ecology. In fact, their ultimate goal is to, "Leave next generations with an environment largely unspoiled by our industry activities and products."

The Opportunity

Bombardier Transportation, Inc. operates and maintains the Las Vegas Monorail system. Historically, they've had to replace the 250 fiberglass resin seats in the cars every three years because they couldn't withstand the heavy wear and tear from commuters and their unforgiving luggage. Bombardier was looking for a sturdier material that would last longer and meet the strict mass transit SMP 800 regulations. True to form, they also wanted a material that was kinder on the environment than non-recyclable fiberglass.

The Solution

When the KYDEX, LLC sales team heard of the opportunity to improve the seats on the Monorail, they knew KYDEX® 6200 LTR would deliver. All that was needed for the project was a skilled design team and fabricator. They recommended Ray Products, Inc. who joined the team as the seat designer and fabricator.

"We were excited about the opportunity to design and mold KYDEX® 6200 LTR for durability and better material distribution. The goal was a 10-year-lifespan versus the current 3 years Bombardier was getting from the composite seats," says Brian Ray, President of Ray Products. "The whole process from design to execution was smooth and we were very pleased that KYDEX® 6200 LTR (low-smoke, low-toxicity formulation) formed as consistently as other KYDEX® sheet we've used. And, the fact that there's a recyclable option out there for the thermoforming industry is significant. People are really looking for greener choices."

Bombardier's Field Service Engineer Seth Siaki, echoes the team's enthusiasm about the end result. "KYDEX® 6200 LTR was about 50 percent cheaper while more robust over the previous composite material. We estimate the projected lifespan of the new seats to be 3 to 5 times longer than our existing seats. The previous material used in the design of our train seats turned to dust due from the environment and the lack of strength in the material."



KYDEX® 6200 component for Las Vegas monorail

KYDEX, LLC

ISO 9001 and 14001 Certified

Customer Service

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www.kydex.com

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About KYDEX, LLC

KYDEX, LLC, is a U.S. - based manufacturer of proprietary thermoplastic sheet products marketed worldwide under the trademark KYDEX®. The company's headquarters, major manufacturing operation, customer service and R&D facilities are in Bloomsburg, PA. Those facilities are certified to the ISO 9001 quality management system and ISO 14001 environmental management system. Additional distribution facilities are located in Sparks, NV. A worldwide network of KYDEX customer service personnel and factory-trained sales representatives provide current and prospective customers with technical advice on designing and manufacturing components that benefit from the special properties offered by KYDEX® sheet products. Call 800.325.3133 or visit KYDEX online at www.kydex.com for more information.

About Bombardier

BOMBARDIER A world-leading manufacturer of innovative transportation solutions, from commercial aircraft and business jets to rail transportation equipment, systems and services, Bombardier Inc. is a global corporation headquartered in Canada. BOMBARDIER ECO4 technologies – built on the four cornerstones of energy, efficiency, economy, and ecology – conserve energy, protect the environment and help to improve total train performance. Bombardier Transportation has a presence in over 60 countries. It has an installed base of over 100,000 vehicles worldwide.

About Ray Products, Inc.

For over five decades, Ontario, California based Ray Products has been a world-class leader in thermoforming heavy gauge thermoplastic materials. Combining three generations of leadership, skilled craftsmen, advanced 3D CAD/CAM technology and specialized vacuum/pressure forming equipment, Ray Products is meeting and exceeding today's rigid demand for innovative product development—economically.



About the Las Vegas Monorail Company

The Las Vegas Monorail Company runs the only privately owned public transportation system in the United States. The Monorail is privately-funded, utilizing no public funds to build or operate the system. It is governed by its board of directors, appointed by the governor of Nevada, and led by President and CEO Curtis L. Myles III. Myles oversees the management of the Monorail day-to-day operations in addition to expansion plans. As of 2011, the system included seven stations and had transported over 45 million passengers.

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