

INTERNATIONAL Railway Interiors

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LOVE AND ENDURE

Schneller's Indura GT range of laminates provides operators with a tough but stylish solution for all their interior designs

Aggressively competing for growing traffic volumes, railways are catering to passengers with new rail-car interiors that are visually exciting, comfortable and electronically connected for business and pleasure. New designs are redefining the interior experience, with pleasing contour surfaces, ergonomically satisfying seating, tables and food service areas. As structural components become more aerodynamic, interior designers and engineers are looking for materials and methods of surface treatment that meet increasingly tough challenges of conformability, durability, and safety regulations.

In response, Schneller has developed the Indura GT range of laminates, which are engineered constructions typically consisting of a synthetic base ply, a custom-printed core, and a protective, clear fluoropolymer top ply. The laminates are embossed with a variety of textures, including those simulating fabrics, and are available in continuous roll form or sheets, coated with either pressure-sensitive or heat-activated adhesives.

There are three types of Indura laminates: Indura GTfilm, a series of 3-D formable film laminates that easily cover the complex contours of modern window masks, curved wall areas, and corners; Indura GTglas, a fiberglass-reinforced film laminate that provides exceptional durability for high-wear areas such as phone booths, kitchen galleys, luggage racks and lavatory interiors; and Indura GTform, a thermoplastic laminate for application to rigid and contoured parts, such as seatback shrouds and window panels. GTform is engineered for high-performance in-mold decorating of RFP panels.

All of these products are available as customized solutions to meet the exact design specifications of individual customers for colour, pattern and texture, the degree of conformability and durability, and type of adhesive for the applications. They have been formulated and tested to comply with major flame, smoke and toxicity requirements around the world. Indura GT laminates are also easy to apply, either in new car installations, or when retrofitting existing stock. They are also easy to maintain because their tough, fluoropolymer top ply resists stains, scuffing and graffiti and are easy to clean without harsh chemicals. The following case studies also show the many benefits of the Indura range.



Making Amtrak cars look new again

After decades of daily use, the interiors of Amtrak's Amfleet I and II passenger and food service cars were really showing their age. Window masks, galley walls and cabinet areas suffered from years of soiling, staining and harsh cleaning products. The 1970's-era design scheme of bright orange and purple paisley was also out of touch with temporary design trends. Instead, a sleek palate of silver, blue and charcoal grey was the order of the day.

Amtrak officials selected Indura GT laminates engineered with Dupont Tedlar fluoropolymer as the top ply. "They liked the fact that the Indura laminates are faster, safer and easier to retrofit than conventional materials," says Schneller's Matthew Miklos, General Manager, Transportation Products Group.

The laminates are delivered to the site in large rolls with adhesive backing before retrofit crews cut them to fit the required size and shape, peel off the liner and press the parts over the existing high-pressure laminates. This application process requires far less time and material than replacing the entire window mask, galley and cabinet surfaces with conventional materials. It is also safer than spray painting in enclosed areas.

Since the mid-1990's, more than half of the Amtrak fleet has been refurbished, with the project expected to be completed no later than 2007.

Flexibility for the Acela Express

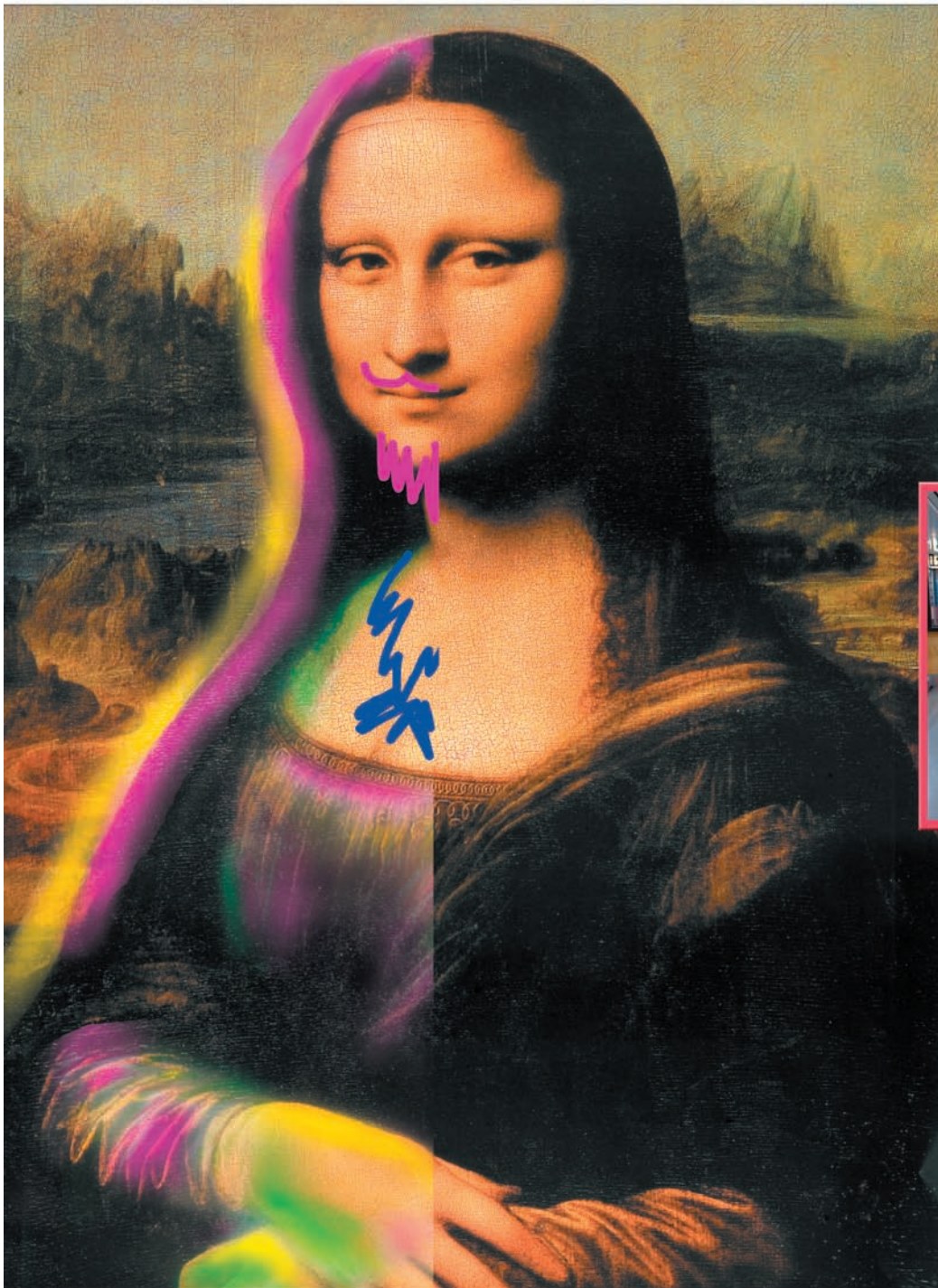
With the new Acela Express, Indura was specified for as many surfaces as possible, including surrounding windows, wrapping bulkheads, forming accent panels and covering galley walls and service cabinets. This gave designers the freedom to use a wide variety of coordinated colours, patterns and textile finishes, unlike the limitations of gelcoats or paints. The replacement of many conventional materials with Indura laminates also offered a tremendous weight reduction vitally important to a high-speed train.

"Schneller's Indura laminates do a lot of things in our interior upgrade programs, such as covering over structurally sound surface, or colour-and-texture-matching of both new and already existing surfaces to tie everything together," said Blair Slaughter of Amtrak's bureau of rolling stock engineering. "This flexibility, plus easier installs and easy-to-clean surfaces, have saved us a lot of money."



Indura™
railcar interior décor

surrounding you with solutions



KEEP SMILING...

with **Indura**TM
graffiti-resistant
interior laminates



WORLD CLASS

GTfilm laminates

DESIGN

GTform laminates

TECHNOLOGY

GTglas laminates

MANUFACTURING

customized solutions

SERVICE

technical support

The beauty of it all is that now your new interior design masterpieces will stand the test of time against abuse and are so easy to clean!

Introducing Schneller's **Indura** flexible laminates. Created to inspire great passenger interiors with fresh colors, patterns and textures. Engineered to fit new contoured surfaces. Formulated to meet strict flame, smoke and toxicity regulations. And customized for all your demands – with fast turnaround and low minimums – to keep you smiling.

Design. Durability. Safety. Cost-effective solutions.



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