

Designing with Purpose: HOLON's Sustainable Approach to Autonomous Bus Interiors



Designing modern bus interiors means more than checking boxes for compliance and durability – it's about reimagining passenger spaces that are safe, sustainable and visually compelling.

Traditional materials have long constrained creative freedom. But in today's transit landscape, where riders value both comfort and environmental responsibility, designers are rethinking what's possible.

When German startup HOLON set out to develop its next-generation autonomous shuttle, its design team faced a familiar challenge: finding an interior material

that could meet FMVSS 302 flammability standards, offer recyclability and support a premium, consistent look and feel. Traditional solutions didn't measure up, so HOLON turned to SEKISUI KYDEX for a fresh perspective.

One of the key pain points in bus interiors – much like in other interior design – is maintaining visual consistency across different components and processes. Variations in colour and texture between materials can disrupt the passenger experience. To solve this, HOLON and SEKISUI KYDEX worked closely to identify the right solution from a broad portfolio of thermoplastics. The standout: ALLEN® 5050 WLG.

Chosen for its high impact resistance, low-gloss matte finish and excellent colour matching capabilities, ALLEN® 5050 WLG provided the material harmonisation HOLON's design team needed. Its glare-reducing surface enhances passenger comfort, while its recyclability supports the company's sustainability goals. For a forward-looking brand like HOLON, building vehicles from the ground up, the ability to combine durability, compliance and design elegance in a single material was a game-changer.

Production flexibility was also critical. With plans to launch in both the U.S. and Europe, HOLON needed reliable thermoforming partners on both continents. SEKISUI KYDEX connected them with a thermoformer trusted in transportation interiors and based in Germany and the U.S. to ensure consistent quality regardless of location.

HOLON's autonomous vehicle isn't just redefining mobility – it's proving that sustainability and design excellence can go hand in hand. With the right materials and

partners, even the most demanding bus interiors can be both resilient and inspiring.

About HOLON:

HOLON is one of the first vehicle manufacturers for autonomous movers with the standards and scaling potential that we know from the automotive industry. With our platform technology, vehicle expertise and strong partner network, our goal is to redefine passenger transport. To this end, HOLON works with technology companies, local public transport companies and Mobility-as-a-Service providers. HOLON is a subsidiary of the BENTELER Group.

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