



The Sandwich Solution

With minimized service costs, excellent insulating properties for temperature, noise, and vibrations – all resulting greater overall cabin comfort – both rail and bus operators benefit from XBODY®.

Low Environmental Impact

A significant reduction in weight, along with increased life cycle conditions and long-term service result in a remarkable reduction of CO₂ emissions and fuel consumption. Off-duty service time is also minimized, due to an efficient "cold" repair system. Coil-coating and anti-graffiti coating finish options are also available.

XBODY® offers a lightweight alternative to solutions currently available in the transport building industry. Designable to any vehicle's construction type, XBODY® presents a body-in-white structural component for external cladding or for use as built-in panels.

XBODY's® lightweight nature translates into higher passenger numbers, more payload accommodation, and more spacious cabins. An overall lower vehicle mass also contributes to increased longevity and durability of the structure as a whole – especially preserving vehicle tracks, wheels, axles, and brakes.



3A Composites Mobility
Airex AG
Park Altenrhein
CH-9423 Altenrhein
Switzerland/Schweiz
+41 71 858 48 48

www.3acompositesmobility.com

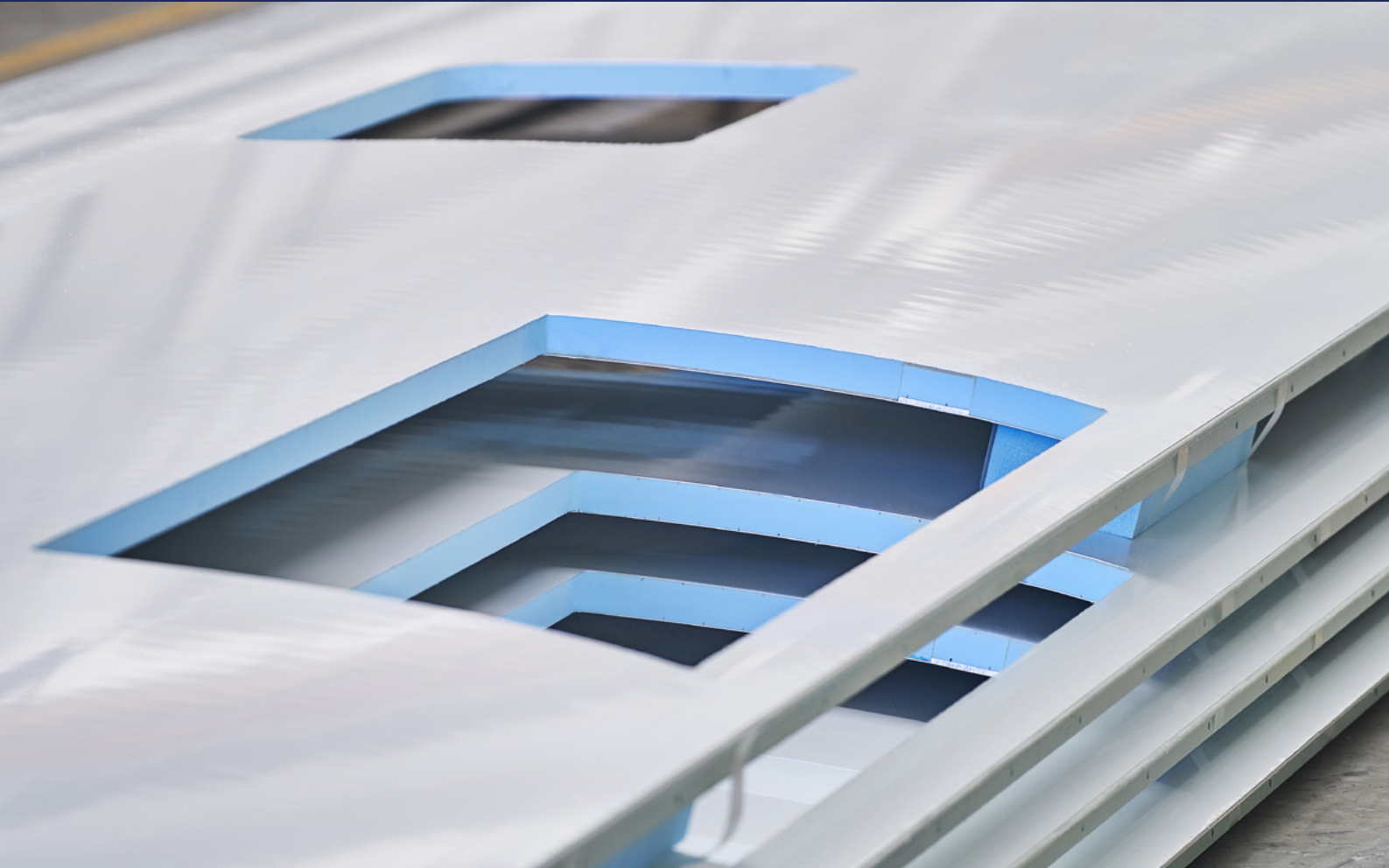


XBODY®

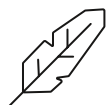


Lightweight structural
components for superior
vehicle body shells

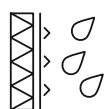
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XBODY®



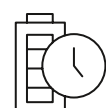
lightweight



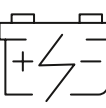
corrosion resistance



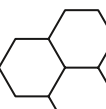
customization



long lifetime



energy efficiency



modularity



safety



energy saving

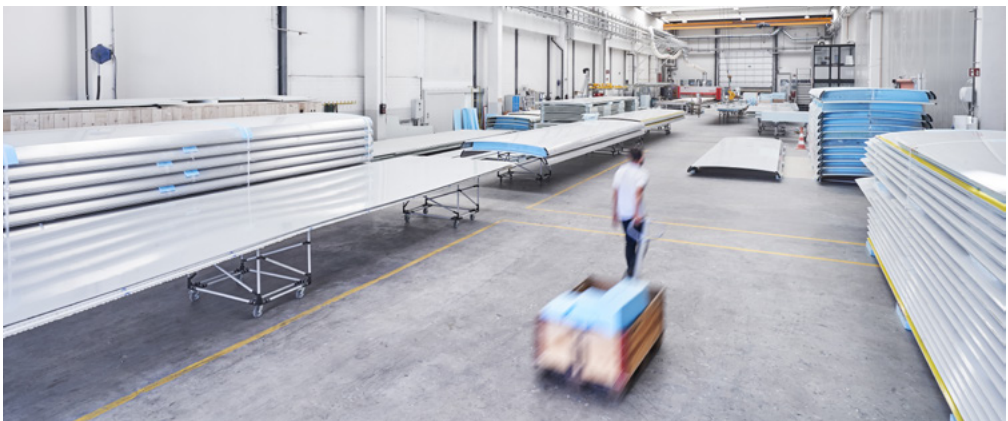
XBODY® is a family of lightweight exterior applications created for rail and road vehicles. Once XBODY® is applied, the whole construction benefits from modular and structural components with the highest stiffness to weight ratio. XBODY® also functions as an ideal solution for developing body-in-white structures in rail and road vehicles.



Our solution relies on a qualified and well-established production process, which is verified and trusted by leading manufacturers and operators worldwide.

Reduced Vehicle Manufacturing Process

XBODY's® modular construction ensures a significant reduction in assembly time. Suitable delivery and handling performance enable easy transportation of large parts. Whole components can be pre-painted to client specifications before final stages of production and assembly. Once an XBODY® roof is installed, no additional thermal cladding is required as part of the internal roofing system.



Overview

XBODY® sandwich parts – such as roofs, floors, side walls, panels and chassis components – offer a high level of strength and durability, and have already proven their reliability across many generations of vehicles.

XBODY® properties provide high-impact resistance as well as increased energy absorption in the case of a crash, ensuring improved overall vehicle performance.



XBODY® for Rail

- Rail products meet structural body building and exterior covering demands: trams and coach rail vehicles **are made lighter and with higher efficiency** (in accordance with ISO EN 12663)
- Composite design of materials: meets EU and **country-specific legally-required fire standards; structural sophisticated life-cycle performance and safety needs of electric insulation and grounding**
- **Flexible design** allows for quick integration of changes and platform adaptability in shortened engineering phases
- XBODY® rail exterior products as roof and claddings can also be delivered with **a coil-coating or pre-painted finish** on the exterior and visible interior surfaces, according to rail application demands

XBODY® in Use

- **Sustainable sandwich material design:** made of proven lightweight solutions, allowing for modern modular production performance in transport
- **Lightweight and structurally capable of replacing conventional body-in-white designs**
- Low facility investment: quality just-in-time production, latest joining technologies for **best tolerance assembly, simplified replacement and repairability**
- **Engineered for integrative assembly,** joining hybrid material body parts
- **Specifically engineered to bear heavy loads**
- Cutting-edge technology: **components are designed to meet environmental demands** and are tested in adherence with legislated EU ECE bus and rail safety regulations and structural integrity standards
- **Building transport applications of the future,** thanks to XBODY's® integrative and functional specifications



XBODY® for Road

In order to keep up with the rapidly growing demands of future mobility, both vehicle manufacturers and operators need to address vehicle aspects, such as **low CO₂ emissions and fuel consumption, long service life and robustness, along with customer satisfaction, service, and quality.**

XBODY® components have been developed into systems, creating the opportunity for new logistics and assembly concepts for modern bus manufacturing and development worldwide. For city buses, coaches and double-decker buses, XBODY® **features a validated and tested design and an integrable system platform.**

