
Perfected over decades of production and service, INNOCAB® has earned its place as one of our most recognized products.

Strong, Durable, Impact-Resistant (Speeds up to 600 km/h)

INNOCAB's® offers weight reduction and increased strength, made possible by a combination of carefully selected materials. The module's fibre-reinforced plastic, combined with high quality hard foam, **ensure noise reduction and heat insulation, while meeting all required fire protection standards.**



Less Is More

INNOCAB® provides a lightweight solution that improves overall performance. Efficient part consolidation ensures less parts are required per unit.

A Low-Maintenance, Cost-Effective, and Time-Saving Solution

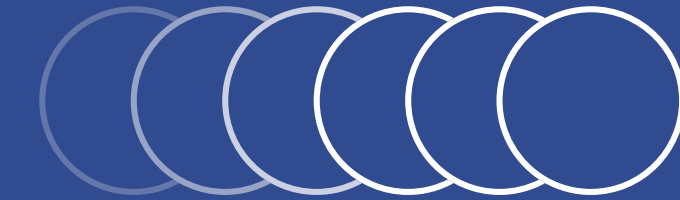
INNOCAB® modular system **significantly reduces unit assembly time.** Existing cabin construction upgrades or entirely new cabin concept installations are made easy and require little tooling investment.

INNOCAB® modules are **low-maintenance and require minimal lifecycle investment.** In the case of element damage, the unit's sandwich technology also allows for train manufacturers and operators to directly apply proven, authorized panel repair systems. Smaller damages can be fixed at local workshops, while structural damages can typically be brought in for repair by qualified personnel at designated service centres.



Mobility

INNOCAB®



Ready-to-assemble
train front ends

www.3acompositesmobility.com



Mobility

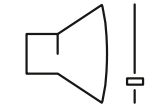
**3A Composites Mobility
Airex AG
Park Altenrhein
CH-9423 Altenrhein
Switzerland/Schweiz
+41 71 858 48 48**

www.3acompositesmobility.com

**3A Composites Mobility S.A.
ul. Inwestorów 6
39-300 Mielec
Poland/Polska
+48 17 773 78 00**



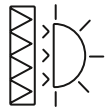
INNOCAB®



noise reduction



fire protection



thermal insulation



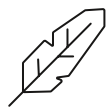
customization



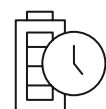
modularity



energy saving



lightweight



long lifetime

High quality, lightweight, ready-to-go rail front end cabin unit offering superior impact resistance. A long-time produced and trusted solution that can optionally be assembled and/or additionally equipped on demand. Coating finish options are also available.



A Modern Cabin Solution for Train Manufacturers and Operators

Powerful, durable, thoroughly tested and approved for safety. INNOCAB® is considered a trendsetter when it comes to future solutions in transport manufacturing, all the while using cost-effective materials.

The efficient use of composites in the mobility sector is rapidly growing. Composite modules are increasingly being used to strengthen the structure of buses, trains, tramways, planes and boats. INNOCAB® offers all the benefits of traditional materials with additional perks that are enabled by composite technology, helping to create a successful train concept. INNOCAB® products are already installed, trusted, and relied upon by many leading train manufacturers.



Overview

The unit's hard foam core, fibre-reinforced plastic and cover layers make for consistent, high quality, durable, and modern-looking train and rail front-end cabins or auxiliary car body elements. By design, INNOCAB® is an ideal answer to demanding operational behaviour specifications.



INNOCAB® in Service

- Stiff and rigid structure offers **a safe work environment for train personnel**
- Non-corrosive materials ensure **long-lasting performance**
- Substantial weight reduction **supports energy savings**
- Thinner walls make for a **more spacious cabin interior**, meaning increased passenger comfort and ergonomics
- Minimized repair time**
- Damages can be **fixed in-house** by use of a cold repair method
- Simplified repair process:** modular construction makes for easy part replacement

INNOCAB® in Use

- Tested and certified production processes** ensure product adherence to demanding industry standards
- Resistance to punctures, impact, and heat**
- Fire protection, noise insulation**
- Ready-to-install modules:** pre-assembly units are delivered equipped with all necessary metal parts
- Custom-made** to your desired specifications
- Reduced number of parts **enables a shortened assembly time**
- Elements are **provided ready-to-go**
- Option to select between **water or solvent based painting**
- Easy onsite replacement or repair**

Production Technologies

Based on the customer order, INNOCAB® is manufactured with the use of three distinctive production technologies: **Handlamination** – used for smaller series; **Vacuum Assisted Resin Infusion (VAC)** – used for common and intercity trains; or **Vacuum Infusion Process** – typically employed for modern high-speed solution designs. **All technologies offer superior product properties and high surface quality.**

Vacuum Assisted Resin Infusion (VAC)

- Technology competent** from CAD design and engineering to ready-to-install modules
- Great for producing **high-quality, large scale structural elements**
- Construction based on hard foam or balsa cores** covered with fibre-reinforced resins and gel-coated skins
- Process incorporates core bonding for **quicker element manufacturing**
- Product offers **increased stiffness and durability** levels comparing to common composite production technologies (hand or spray infused)
- Inserts for **quick interior element installation** can be added to the production process
- Cabins are **available in a combination of options:** choose from unfinished, primed, coated finish, partly assembled, or ready for assembly



Vacuum Infusion Process

- Cost-effective process yielding high quality, ultra-lightweight, and durable** composite parts
- Helpful for creating composites with higher fibre content**, yielding improved overall product properties
- Produced by highly experienced and qualified personnel**, guaranteeing product quality and adherence to top industry standards
- Cabin fronts (including interior) can be completed with a choice of coated finish



Water or solvent based painting

- Large-sized front ends coated in top modern painting infrastructure **with humidity and temperature control system**
- Tested on a **wide range of coating systems**
- Multicolor surface** option available
- Full range of tests according** to specifications
- High-class surface quality** (internal and external)