



Elevating Rail Travel with Sustainable Lightweight Solutions

As the transportation industry evolves, the focus on sustainability and efficiency becomes increasingly critical. For over 70 years, Diab has developed, improved, and fine-tuned our cores and sandwich technology with a solid focus on sustainability, turning us into the market leader in many areas. We have also grown into a total solutions partner that provides complete end-to-end services, from technical and design support to creating kits ready for your production. Our innovative recyclable Divinycell PR sandwich core materials together with all our services are advancements poised to significantly contribute to sustainable solutions in the rail industry.

Innovative Core Materials for a More Sustainable Rail Industry

Our Divinycell PR sandwich core materials are engineered to support the creation of lighter train structures. This reduction in weight can lead to notable decreases in fuel consumption and carbon emissions, which can contribute to lower operational costs and a reduced environmental footprint.



KEY BENEFITS:

- **Lightweight Design:** Divinycell PR is designed to provide the necessary strength without adding excessive weight, potentially enhancing payload capacity and range in rail applications.
- **Non-Organic Composition:** The core's non-organic nature eliminates the risk of rotting, which can be a concern in various environments.
- **Insulation Properties:** Divinycell PR offers enhanced insulation capabilities, which can benefit train interiors by contributing to energy efficiency and passenger comfort.
- **Fire Safety:** Compliance with EN45545-2 standards ensures that the Divinycell PR meets stringent fire safety requirements, which is crucial for rail applications. Several alternatives exist to achieve a lightweight, sustainable solution with aluminium, HPL, or fibre-reinforced composite skins in combination with fire-retardant resins.
- **Full Recyclability:** The 100% recyclable Divinycell PR reflects a commitment to sustainability and supports a circular economy.

A Commitment to Excellence and Safety

Our PET core materials are designed to withstand rigorous structural demands while ensuring compliance with fire safety standards. Their versatility makes them suitable for various applications within the rail industry, from floors to interiors and exterior components.

Proven Performance in Rail Applications

Our core materials have been integrated into several rail projects, demonstrating their robustness and versatility. These real-world applications highlight the materials' performance and safety, making them a viable option for train manufacturers.



ALWAYS AT THE CORE OF YOUR SOLUTION

At Diab, we are committed to providing solutions to our clients and sharing our knowledge and extensive experience in sandwich structures. With industry-leading competence, the broadest range of stronger, lighter, smarter core materials and a global presence, we continue to support advancements in various industries, including rail transportation.

