

REFERENCES

SIEMENS

BOMBARDIER



IVECO



ALSTOM



HITACHI  
Inspire the Next



GROZ-BECKERT®



RIETER



EVAC TRAIN

# 5M

SMART TECHNOLOGIES  
IN THE WORLD OF COMPOSITES



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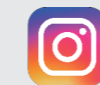
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5M



5m\_company

# 5M






COMPOSITES FOR  
RAILWAY



## COMPOSITE SANDWICH PANELS

Composite sandwich panels present a very attractive alternative to classic aluminium sandwich panels. This material combines glass and/or carbon fibre with a special foam or honeycomb core. We produce composite sandwiches in flat or 3D-shaped panels, including complicated custom-designed components. In the railway industry, these are used mainly for interior lining (e.g. side walls and ceilings).



-  **LIGHTWEIGHT MATERIAL**
-  **NON-FLAMMABLE - EN 45 545-2**
-  **HIGH STRENGTH AND STIFFNESS**
-  **3D SHAPES**
-  **INCLUDING THREADS, INSERTS, REINFORCEMENT**

## ALUMINIUM SANDWICH PANELS

The sandwiches are characterized by high strength, stiffness and at the same time, very low weight. 5M produces aluminium honeycomb sandwiches in flat or shaped panels with many various edge types, including designs intended for further assembly by gluing. In the railway industry, these are used for interior partitions, ceilings, walls and doors.



-  **LIGHTWEIGHT MATERIAL**
-  **HIGH STRENGTH AND STIFFNESS**
-  **FLAT OR SHAPED PANELS**
-  **INCLUDING THREADS, INSERTS, REINFORCEMENT**
-  **RECYCLABLE**

## NEW - AIRDUCTS

Composite materials make possible to design and manufacture light air duct. Thanks to excellent thermal properties without additional insulation, it enables installation of space saving solution. Our technology enables to produce visible parts of the air ducts, which meet all the requirements of the rail air conditioning system, while being a visible element of the interior of the train or tram. This saves more space when there is no need to cover the air ducts.








-  **THERMAL INSULATOR, SELF-SUPPORTING, HIGH INTERIOR SURFACE QUALITY**
-  **LIGHTWEIGHT MATERIAL**
-  **3D SHAPES**
-  **NON-FLAMMABLE - EN 45 545-2**
-  **READY TO INSTALL**
-  **SELF-SUPPORTING**

## COMPOSITE PROFILES

Composite profiles are known under a variety of names, such as GRP, FRP, FRPC, CRP, fibreglass or carbon fibre. We specialize in custom-tailored profiles, developed and produced to meet each customer's specifications and needs. In the railway industry, these are used as outside cover panels for foofs and car bodies, in constructing floor body frames, and as insulated rods for electrical applications.








-  **CORROSION RESISTANCE**
-  **THERMO AND ELECTRIC INSULATION**
-  **LIGHTWEIGHT MATERIAL**
-  **GREAT MACHANICAL PROPERTIES**
-  **MINIMUM MAINTENANCE DURING LIFE TIME**



Revolutionary PUROXIT composite sandwich panels offer a very light and non-flammable construction plate that enables significant mass reduction in any floor construction while still providing ample stiffness and impact resistance. The main applications for PUROXIT panels are in floor structures for trains and trams.



-  **LIGHTWEIGHT MATERIAL**
-  **NON-FLAMMABLE EN 45 545-2**
-  **THERMAL AND ACOUSTIC INSULATION**
-  **WATERPROOF**
-  **FLAT PANELS OR 3D SHAPES**

