

Composites

A new certified bonding process

SMTC's new bonding process has received the DIN 6701 certification required by the German railway industry – a fine success for a company that generates the majority of its turnover in the rail sector.



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Raison sociale SMTC

Turnover 18 millions d'euros Workforce

130

Area of Activity Designs and

manufactures technical panels for train and metro interiors. Offers a full range of structural composite components: ceilings, floors, partition walls, doors, bars, tables and other furniture, etc.

MTC specialises in technical panels, with 80 to 90 % of its turnover generated in the railway industry. In the early 1990s the company changed the orientation of its technology to meet the challenge of double-decker TGVs, which needed to be able to carry 40 % more passengers without increasing the load per bogie. As a result, the company abandoned wooden panels in favour of honeycombaluminium laminated composite structures that combine lightness, rigidity and flexibility of use by enabling more complex shapes to be manufactured. In addition, aluminium is non-combustible and easy to recycle.

DIN 6701 certified

SMTC relies on its long-standing expertise in bonding technologies to manufacture the structures. They are lightweight, resistant to fatigue, enable metal to be attached onto composites and there is no risk of corrosion. In addition, the technology makes it possible to bond a decorative surface directly on to its substrate, thus avoiding unsightly assemblies and finishing work.

The company patented a bonding process in 2008 called "Vacuum Fast Bond" (VFB) that reduces environmental impact. This process, which is more robust, uses fewer solvents and eliminates the excess chemicals that result from the standard process. And there is another advantage: the speed of implementation because, using VFB, only fifteen minutes is needed to assemble the structure compared to an hour previously.

C2M project

"We wanted to have our process appraised by Cetim so that we could consolidate our approach", explains Gilles Le Masson, technical director at SMTC. The expert analysis was carried out as part of the C2M (multi-material bonding) joint regional project in Pays de la Loire; it resulted in the specialists at Cetim assisting the SME in its efforts to obtain the DIN 6701 certification required by the German railway industry - with the certification being awarded on March 9, 2012.

Cetim's advantage



Cetim brings its independent expertise to companies wanting to

improve their bonding expertise. The assistance is offered on an individual basis or in groups and covers every stage of development, from design to industrialisation via the formalisation of the quality process.



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