

## Thermosetting laminates in rail vehicle manufacturing

In vehicle construction each kilogram of saved material saves power. This reduces the power demand and protects the environment in a sustainable manner.

The European railway standard EN 45545 which has been implemented in the year 2013 after 20 years of standardization work sets for the first time Europe-wide uniform, ambitious objectives for the product properties of the parts which are assembled in rail vehicle manufacturing. While doing so, the railway industry pursues one protection goal:

"To minimize the likelihood of a fire-break out, to limit the spreading of a fire once started. It is aimed at enabling persons and passengers to leave the vehicle unassisted and to reach a safe area."

Owing to their properties such as a low specific weight, a high dimensional stability and excellent flammability properties, laminated thermosetting materials of the Erhard Hippe KG are gaining more and more importance in this field. In-house developments in the area of halogen-free flame retardant systems contribute to taking into account the requirements of environmental protection.

Long before the implementation of this standard, products of the Erhard Hippe KG had been tested according to the strict requirements of EN 45545-2 and released for different cases of utilisation. This enabled the construction engineers of the rail vehicle companies to equip existing and future projects conforming to standards.

So far, already three products have been tested and authorized for use in manifold applications. A fourth product is currently being tested. Thus the Erhard Hippe KG has become a powerful and reliable partner of the wagon building industry.