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Basotect®

Arriving quietly and comfortably – with Basotect® in the interior cladding of the high-speed train Talgo 350

Travelling quietly and comfortably with Basotect® – the Spanish train manufacturer Talgo is now benefiting from BASF's melamine resin foam by using Basotect® for acoustic damping and thermal insulation in the high-speed trains that connect the cities of Medina and Mecca in Saudi Arabia. The 450-kilometer route is served by the Talgo 350 trains, which are designed to travel at a top speed of 300 kilometers per hour – doing so in a sandy environment where temperatures are extremely high during the day and low at night.

Because these extreme conditions make high demands on the materials used, Talgo decided on Basotect®. The lightweight and at the same time flexible foam is used to clad the internal walls and ceilings, providing passengers with optimal acoustics and balanced climate conditions inside the train. Basotect® retains its sound-absorbing and heat-insulating properties even when subjected to extreme temperature fluctuations.

The low weight of Basotect® contributes to energy savings during operation and helps that the high-speed train stays securely on the rails even when traveling around bends. The reduction of weight in ceilings and walls lowers the center of gravity of the carriage and hence increases safety and comfort. Basotect® also meets the fire protection standards for railway vehicles in Europe and in North America. The BASF foam complies with the highest demands of the new EU fire protection standards (HL3 according to EN 45545).

The Spanish foam converter Tecno-Spuma has processed Basotect® blocks to precise, custom-fit laminated parts for the Talgo 350. Xavier Antonio from Tecno-Spuma sees the advantages of Basotect® above all in the combination of the different material properties: "The foam is lightweight and flexible, has outstanding fire behavior and good thermal insulation. Due to the high flexibility and easy processability, it was possible to economically implement the mounting."

More information about Basotect®:
www.basotect.basf.com

More information about the Talgo 350:
www.talgo.com/en/projects/saudi-arabia/haramain/

Photos: Talgo

