

Project Profile: TVG Train Maintenance Facility, France

Project: Energy efficient High Speed Train (TGV) technical center maintenance facility with capability to maintain up to 60 TGV Duplex trainsets.

Solution: The \$320 million (247 million euros) project, which includes parking areas, is organized into six different units, with a total building surface area of 250,000sq ft (25,000 m²): a maintenance building proper, with six tracks and another with three, specialized workshops, a store, offices, a bogie parking area, and a boiler room.



One of the primary objectives of this new TGV technical center project was energy efficiency within the HQE (High Environmental Quality) frame, and anticipating the future RT2010 regulations, which will be much more stringent than the current RT2005. AREP selected Lumira® aerogel-filled panels as one of the sustainable development solutions thanks to its very high thermal insulation properties, creation of comfortable and glare-free natural daylight, lightweight nature, and recyclability.

The desire to maximize the amount of natural light inside the buildings without the typical thermal losses meant a preference for Lumira® aerogel for the overhead diffused natural light and the choice of Lumira® aerogel-filled polycarbonate panels for the façade as well. Alcaud SA, partner of Cabot Aerogel in France, directed the installation of the skylights and façades in Lumira® aerogel-filled 25mm thick multiwall polycarbonate Vitr'Azur® systems offering a U-value of 0.89W/m²K.

Architect/Engineer:

AREP Groupe, a subsidiary of SNCF (Societe Nationale des Chemins de Fer Francais)

Lumira® aerogel partner:

