

Windscreens with DuPont™ Spallshield®/Butacite® for high-speed trains in Europe and Scandinavia



© ADtranz

ADtranz's Oslo Airport Express train uses DuPont™ Spallshield® and Butacite® in its windshield.

Italian laminator Isoclima (a division of SPS) supplies advanced glazing with DuPont Butacite® PVB interlayer and Spallshield® multilayer for non-spalling glass on the inner face to high speed trains throughout Scandinavia and Europe.

Director of transportation glass at Isoclima, Dr. Filippo Ugolini, explained: "The windshields on the ADtranz's T71 Oslo Airport Express Train and S200 Helsinki high speed tilting train, for example, are designed to resist high impact projectiles of 0.9 or 1.0 kilograms at speeds of 350 or 460 Km/h respectively.

The type of projectile concerned are stones thrown up from the track, hailstones and large blocks of ice at tunnel openings. There is also a phenomenon referred to as 'after-school vandalism' to contend with; this refers to kids throwing objects at trains from railway bridges."

"We were pleased to be able to meet this specification using DuPont Butacite® and Spallshield® while maintaining a very streamlined design for the train's cockpit. In the case of the Oslo Express airport shuttle, this involved wrapping laminated glass with two different curvatures with respective radii of 200 mm and 10,000 mm, plus a flat part, all incorporated into the same panel around the locomotive front."

Isoclima has installed the same two products on a range of European trains. These include the Swiss 'Pendolino' high speed train from Milan to Stuttgart; high speed Italian trains such as the ETR 500-3 (known as the TGV of Italy), the underground in Ankara, Turkey, high-speed trains in Portugal and locomotives in Scotland.

Dr. Ugolini concluded: "After all this positive experience over many years with Spallshield®, we can really say that we trust the product. It performs very well at the temperatures needed to produce the curved laminated glass that our specialty transportation clients need in order to achieve a streamlined, contemporary look."

DuPont
Laminated
Glass News

