

Advanced Optics

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SCHOTT
glass made of ideas

Restoration Palace of Tears, Berlin

Project Report



THE MATERIAL

- TIKANA® |
6 mm thick as insulating glass
- Up to 2,794 mm in height
- Model panes



Drawing: Model panes as insulating glass with four different angles.

Sixties Look Special Glass

Its overall appearance takes us back to the early 1960s. In technological terms, however, it is state-of-the-art 21st century: SCHOTT TIKANA® restoration glass. This is why the Berlin authorities for the preservation of historic buildings decided to use this special glass to renovate the Palace of Tears in Berlin.

The Task

After World War II, the Friedrichstrasse train station was the last station before the border to West Berlin. It became a border crossing point after the Berlin Wall was built in 1961. An attached pavilion was then built for border clearance based on the plans drafted by Horst Lüderitz, the architect of the German Reichsbahn. It was given the name "Palace of Tears" due to the many goodbyes that had to be said here.

Major renovations were performed in advance of the permanent exhibition entitled "Border Experiences. Everyday Life in a Divided Germany" that opened in September 2011, including the new glass façade.

The Challenge

Lüderitz had designed the "customs clearance building" to be a pavilion flooded with light. The steel-framed construction of the glass façade rests on top of a 2.50 meter high pedestal.

The aim of the Berlin authorities for the preservation of historic buildings and the architectural firm Bollinger + Fehlig Architekten in renovating the building was to preserve and restore the character of the building as authentically as possible. This included using large glass surfaces that have the same type of slightly irregular structure that was typical for the production processes used in the 1960s.

Furthermore, the project planners wanted these glass panes to offer special lighting properties that would prevent the room from overheating as a result of sunlight.

The Solution

The restoration glass TIKANA® met the demands of the authorities for historic buildings, since it was the only product that closely resembles the historic, slightly irregular glass used in the early 1960s.

In addition, SCHOTT was the only company capable of producing these glass panes in the required thickness of six millimeters and the dimensions needed. For example, the project called for model panes of up to 2,794 mm in height.

To meet the requirements of thermal insulation, TIKANA® was used on the inside and then combined with a float glass pane that features a heat insulation coating.

