

Large glass for UN

sedak Replaces 13m Long Glass Units In Geneva

The renovation of the United Nations Conference on Trade and Development (UNCTAD) building in Geneva shows how the production technology of today makes monumental protection possible even for buildings with glass façades.



The 13m long insulating glass units, which in 1971 had been fabricated manually, had to be replaced. sedak delivered tempered double IGUs produced fully automatically. The dimensions are still impressive. It was a spectacular exchange: In 2016, parts of the glass façade of the UNCTAD building in Geneva (second headquarters of the United Nations) were replaced. The 45-year-old glazing had become foggy; some of the glass units had cracked; the bonding of the support structure of the glass façade had aged.

Due to monumental protection,

the new glass units had to be true to the original, i.e. of the same oversize dimensions. Additionally, the special supporting structure of the building was supposed to be maintained.

The dimensions of the glass units were exceptional for the year 1971. They were manufactured manually from non-tempered glass and were said to be perhaps the largest units that had been produced by then. Today, sedak provides tempered insulating

The completed façade of the "United Nations Conference on Trade and Development".



The glass façade has shone in new splendor since its completion in September 2016.

All photos: Organisation international Genève

glass up to 15m manufactured fully automatically.

"To be able to install the glass in 1971, the building envelope was realized as a hanging façade. That principle had to be kept in mind," says Ralf Scheurer, who handled the project in sedak. It took the metal constructors (Metallover SA, Carouge/ Switzerland) about four months to check whether the project is possible at all.

Also the colour had to fulfil specific requirements: For the UNCTAD building, it was only allowed to use standard float glass (green glass) which cannot be procured as fast as lowiron glass. "We were able to offset the longer delivery time of the raw material with the quick production at sedak," says Scheurer.

The insulating glass units were manufactured within weeks. sedak produced a total of nine double IGUs out of 12mm thick basic glass (dimensions: three units in 2.29m x 7.84m, six units in 2.29m x 13.10m).

Project Hunt

The single glass panes had been produced as heat-strengthened safety glass to guarantee a higher break resistance.

The metal blocks of the old façade were replaced by glass blocks that were attached to the IGUs with a special adhesive. "Before replacing the metal blocks, the contracted metal engineering company had run special material test series in Lausanne. In the end, glass turned out to be the best material for the bonding. That shows once again how versatile glass is," explains Scheurer.

Logistics and installation

sedak packed the insulating glass units in specially fabricated boxes which were adjusted to the dimensions of the formats and corresponded to the safety requirements with a supporting structure.

A low-bed trailer transported the glass units to Geneva where they were installed with a truck crane and a glass vacuum lifter. In September 2016, the installation was completed.

About the company

sedak, the glass manufacturer in Gersthofen, Germany, was founded in 2007. With its 150 employees, the world's leading glass fabricator produces insulating and safety glass in dimensions up to 3.2m x 16.5m: processed, tempered, laminated, printed, coated, and cold bent. The core capabilities are the lamination of glass, edging, and the company's know-how of producing glass components with additional functional and decorative elements. sedak's production has been optimized for extraordinary glass sizes; the level of automation for such glass dimensions is unique. All finishing steps are handled in-house e.g. with the new, fully automated insulating glass line.



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The technical drawing demonstrates how the glass façade was realized as a "hanging façade": front of glass unit, the green rectangles show the bonded glass blocks, eight blocks per unit (4 at the front, 4 at the back). Metal fastening claws grab the glass blocks from above and thus, connect the glass units with the supporting structure.

