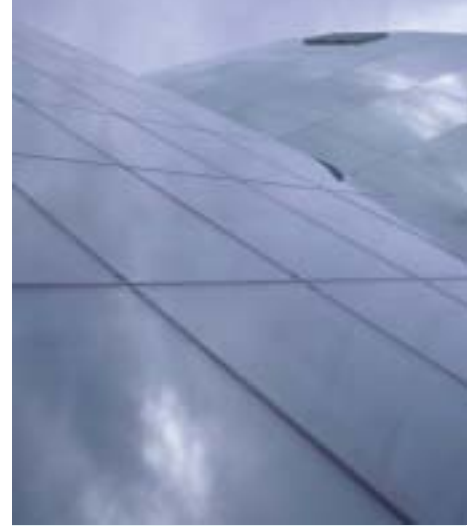


Case Study Hans Hollein's Ausstellungshalle, St. Polten



Dow Corning's reputation for innovation and technical excellence is demonstrated in its work in developing unique new fixing systems for two buildings in the North Austrian city of St. Polten, Hans Hollein's Ausstellungshalle (exhibition hall) and Klaus Kada's Festspielhaus (theatre).

For both buildings, Dow Corning has worked closely with the company and architect concerned, to develop innovative new construction techniques. The result has been two stunning structures, which draw visitors and acclaim alike from across Austria and Europe.

The project

Hans Hollein wanted to attract visitors to his exhibition centre by designing the roof to the entrance as a flowing wave. He chose to build the roof from a series of laminated glass plates, but wanted to achieve as smooth a surface as possible, to give the impression of flowing water.

To achieve this flowing effect, Dow Corning worked with the company, Officine Lorenzon SNC, to develop a unique new fixing system, in which the bolts securing the glass plates are fixed directly to the glass using Dow Corning® 993 structural silicone sealant, instead of drilling the glass in the normal way. The main advantages of this technique are improved aesthetics (without drilled holes, the surface of the glass roof is really smooth, like the wave Hollein was looking for); less risk of dirt accumulation around the bolt fixture; better transparency; and a much lower production cost, due to the absence of glass drilling.

Dow Corning realised the structural calculations for the circular structural joints, taking into account the action of the wind, temperature and snow; made the adhesion and compatibility tests on the bolts and accessories and built a technical file to help convince the architect of the durability of the technique.

The new fixing system developed has not been used by many architects to date (although Frank Gehry used it for part of the Guggenheim museum). This is undoubtedly because there is low awareness of the technique, since the advantages it offers, particularly from a cost point of view, can only benefit the architect.

Building:	Hans Hollein's Ausstellungshalle
City:	St. Polten
Country:	North Austria
Product:	Dow Corning® 993
Architect:	Hans Hollein
Curtainwall:	Officine Lorenzon SNC

The project:

- Dow Corning's reputation for innovation and technical excellence is demonstrated in its work in developing unique new fixing systems for two buildings in the North Austrian city of St. Polten, - Ausstellungshalle (exhibition hall) and Festspielhaus (theatre).

- The roof to the entrance of Ausstellungshalle was designed as a flowing wave, built with a series of laminated glass plates to give the impression of flowing water.

- Dow Corning worked with the company - Officine Lorenzon SNC - to achieve this effect by developing a unique new fixing system. The bolts securing the glass plates were fixed directly to the glass using Dow Corning 993 structural silicone sealant, instead of drilling the glass in the normal way.