

## 1st Polyurea Information Day for Architects

On November 21, 2008, WET Wassertechnik GmbH held a Polyurea Information Day for architects, project planners and owners in the Congress Center in Villach / Austria. The limited success of Polyurea in Europe as compared to North America and Asia is due at least in part to the numerous regulations and lack of knowledge about this material prevalent in the construction sector. Norbert Hörner of WET Wassertechnik GmbH has declared that it is his goal to change this situation and to achieve acceptance of polyurea as a construction material by holding information seminars for architects and construction authorities.

Among those holding presentations were Lee und Kelin Bower and Dudley J. Primeaux II, who were ceremoniously greeted by Villach city mayor Harald Sobe. The 30 seminar participants from various Central European countries were provided a wealth of information on polyurea including its development (First fabrication by the U.S. firm Hill & Walker, first patent in 1970, first industrial applications in 1988) and carrying on through to today's state of the art. An important point made clear to the participants was that polyurea is by no means an untried material but in fact has a track record of use spanning 20 years.

Reasons for polyurea's success in residence construction were illustrated in a presentation on the "Euro-Cube" given by the project architect, Peter Scherzer of Scherzer-Vallent Architects.

This residential expansion project (see report in FAPU Issue 50 of July 2008) was the first of its kind carried out in Europe. The planner, system supplier and supervisor for the project was Hercules GmbH of Villach / Austria.



## Job Profile:

A private home owner in Villach, Austria was looking to expand his home.

The problem; he lived in a crowded city center, in a town with strict zoning and historical preservation laws. The solution; build a pre-fabricated box off site, coat it with PolyVers 42D, and lift it into place. "The Cube," as it is commonly referred to, was designed to have a minimal foot print, as space is a priority, and set behind and below the roofline of the existing building so as not to change the historical city-scape from the street, and to blend into the existing color of the roof.

The floor, walls, and roof were constructed of framing timbers and plywood and lifted into place by a crane on the city street. Once in place, the prefabricated panels were secured and attached. The prefabrication of the project minimized disturbance to city life and traffic and allowed for a quick construction time. Once assembled, Hercules and Fast Set Power Units primed the cube with Hertex Pox 008 and sprayed with PolyVers 42D using the Gama Evolution G 250 and Master Gun. The 42D was chosen for its UV stability, its ability to maintain color and appearance over time, and its ability to create a seamless, durable, waterproofing membrane that will adhere well to the plywood.

The interior floors, including wet areas such as the bathroom, were then coated using the PV 425 PolyAspartic.

The PV 425 was chosen for its seamless application, excellent waterproofing abilities, high gloss and attractive finish, and its color and gloss retention abilities.

The wall coating was applied not only to the newly constructed surfaces but as well in renovation of existing tile walls in the lower floors. In the tour of the building after the presentation, you could hear the wheels turning in people's minds. The price of the system (not low at 60 - 80 EURO / m<sup>2</sup>) was not seen as a deterrent when looked at in relation to other costs of bathroom renovation such as removal of old tiles, disposal costs for old tiles and debris, new tiles and labor. As an architect there remarked to me, "Now I finally have an idea how to renovate my old bathroom. Keeping the fact in mind that an owner who can afford an architect would hardly use cheap tiles from a D-I-Y market, the price of the system is absolutely within reason." An additional system feature is the bordering of the roof terrace. The GSR® glass-stretching-railing system from the Austrian firm GPP Glass-Project-Partner GmbH provides linear mounting of glass composites in fall-prevention applications, e.g. glass balustrades or terrace bordering high up in the air. The glass pane elements are placed in a specially designed mounting frame, aligned and fixed in position. The joints are then filled with an elastic sealant compound (polyurea-based of course, in keeping with the project). Time is allowed for curing of the sealant and no further fixing is required.

"The Cube" proved a huge success. It added an additional 150 m<sup>2</sup> (1600 ft<sup>2</sup>) of much needed living space and was truly a pioneer project.

