



## RENOVATION DEEP-FREEZE STORAGE HALL, VIENNA AUSTRIA

The deep-freeze storage hall IV of the Vereinigte Eisfabriken und Kühlhallen in Vienna (VEKH) has to be completely refurbished. The deep-freeze storage hall IV was built in 1974, and since then, it has been in operation at a temperature of  $-28^{\circ}\text{C}$ . It was decided to renew the entire façade and roof covering. The existing façade has been constructed from Foamglas®, in the customary "black-box" construction. The Foamglas® panels were bonded with hot bitumen at  $180^{\circ}\text{C}$ . This design has now been abandoned, and is no longer supported by Foamglas®. The currently customary façades with polyurethane (PUR) panels do not fulfill the requirements of fire protection because PUR panels are combustible. The use of mineral wool panels is not possible in terms of building physics due to the low temperatures.

On behalf of VEKH, convex ZT GmbH is responsible as general designer of the entire rehabilitation works (elaboration of the solution, design, tendering and building supervision). In the course of the design of a fire-resistant (REI 90) and vapor-diffusion-proof façade, a large-scale fire test is carried out at the IBS (Institute for Fire Protection and Security Research) in Linz. A master thesis at the FH Joanneum in Graz (company support by DI Sandra Heiligenbrunner) accompanies the project.

### Owner:

VEKH, Vienna

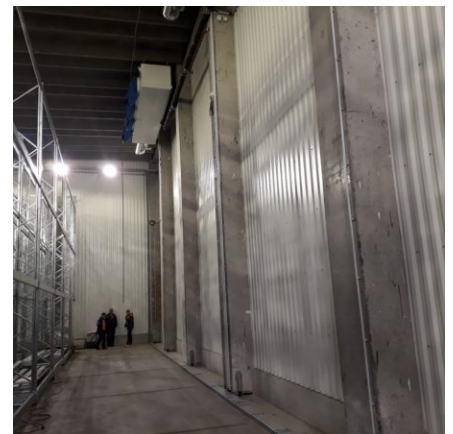
### Area of deep-freeze storage hall:

approx. 900 m<sup>2</sup>

### Height of deep-freeze storage hall:

10 m

### Renovation:



2018

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**Photos:**

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