

Report from the Construction site



Kind of insulation: Insulation of an outside wall

Construction: Planning and execution supervision:
Lichtblau architects, Munich

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VIP-product: WACKER CERAMICS, Kempten

Location: Complete renewal of a terraced house
(Munich)

Date of realization: December 2001

Funding: Bavarian State Ministry of Economics,
Infrastructure, Transport and Technology

Description of the construction:

The vacuum insulation was used to insure a thermal covering with a slim and lightweight construction. It was important to minimize the projection of the facade due to the neighbouring houses. The VIPs were also used as slim additional insulation in the roof and the cellar ceiling. The U-value is 0.15 W/(m²K). The total heating energy demand was reduced by a factor of 10.

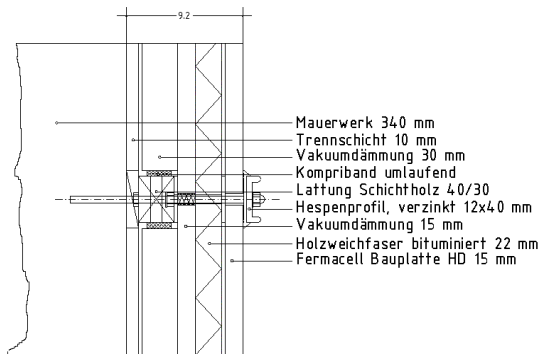


Figure 1: South view after the renovation. Completely integrated solar absorbers under prism glass, held by steel retainers. Because of the guttering the transition of the insulation to the neighbouring house can hardly be recognized. This was only possible with the slim, vacuum-insulated construction.

Figure 2: Cross-section of the northern wall.

Figure 3: Infrared image of the north side of the building. The non-insulated neighbouring house can be seen on the right hand side of the picture. The difference in tone shows how effective the renovation was. The pale vertical lines show the thermal bridges at the joints of the VIPs.