

Report from the Construction site



Kind of insulation: Insulation of outside walls of a newly-built wooden house

Construction: Planning and execution supervision:
Lichtblau architect, Munich

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VIP-product: WACKER CERAMICS, Kempten

Location: A newly-built semi-detached house in Munich

Date of realization: January 2002

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

Description of the construction:

A solid-wooden lowest energy house was built whereby the highly-efficient insulation was realized with slim and architectonically high-grade constructions.

The structure permits defect VIPs to be replaced. The U-value of the wall, which has a total thickness of less than 20 cm, is only 0.14 W/(m²K).

To minimize thermal bridges it was necessary to use customized VIPs. Figure 2 depicts the wall construction. The majority of VIPs measured 100 x 105 x 4 cm³. VIPs were also integrated in the roof and the front door.

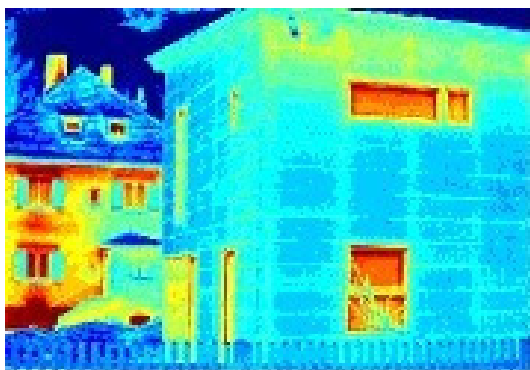
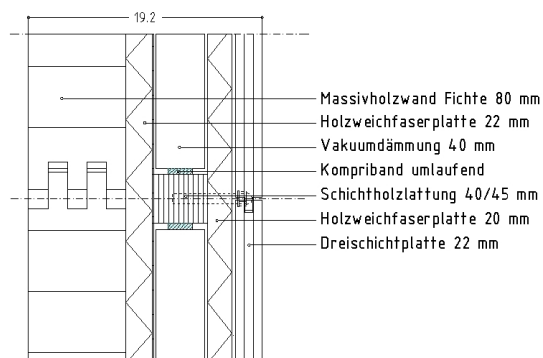


Figure 1: South view of the house. Vertical collectors are integrated between the french-windows .

Figure 2: Cross-section of the wall.

Figure 3: Infrared image of the north-east corner of the building. A non-insulated old house can be seen in the background. The thermal bridges of the wooden substructure can clearly be recognized.