HQ AKS DOMA Solartechnik, Austria

Picture source: AEE INTEC

Architectural integration of solar thermal energy systems
HQ, AKS DOMA Solartechnik,
Office building and production hall with solar collectors integrated in the façade

PROJECT
The head quarter of the Austrian solar collector producer AKS DOMA Solartechnik was, at the opening in spring 1999, one of the first buildings with CO₂ neutral energy supply. The energy and electricity demand for the offices with 470 square meters and the production hall with a floor area of 1,380 m² is covered exclusively from renewable energies.

The heat distribution in the office building is performed via a wall heating system. The production hall is heated via a floor heating system integrated in the concrete floor.

The concrete floor (90 cubic meters) is used both as a radiator as well as a heat store. As a result of the excellent thermal insulation of the building and the corresponding dimensioning of the wall- and floor heating systems, the system can be operated with very low flow temperatures. These low supply temperatures offer ideal conditions for the operation of the solar thermal plant.

Picture source: AEE INTEC
Key figures

- Heated area: 479 m² office area + 1389 m² production hall
- 80 m² façade integrated solar collectors (directly south oriented)
- Heat store: 950 l water heat store
- Auxiliary heating: Bio diesel block heat and power plant
- Heat distribution: wall and floor heating

The solar system is a combined system, contributing to both domestic hot water preparation and space heating.

Solar collector:
Glazed flat plate water collector
Dimensions: 3000 mm length, 95 mm width
Collector producer: AKS DOMA
- **Built/Completion:** 1999
- **Client:** Aks Doma Solartechnik
- **Project design:** Gruppo Sportivo (Bludenz), MHM (Dornbirn)
- **Address/Location:** Sonnenstrasse 1
  6822 Satteins
  Vorarlberg, Austria
- **Type of project:** Commercial building