

Hamburg Bramfeld, Germany



Picture source: AEE INTEC

Architectural integration of solar thermal energy systems

Hamburg Bramfeld

Multi-family house with solar collectors integrated in the roof.

PROJECT

The pretty location inspired the architect to develop 18 terraced houses and two storey residential buildings. The urbanistic design follows the topographic profile very well. Four rows of terraced houses were oriented north south and slightly displaced so that a good view is possible for all the inhabitants. The aesthetic integration of the solar collectors was shown to be a profitable assignment for Arch. Phillipi. He took the creative opportunity to use the large continuous roof area available to integrate a total of 3,000-m² solar collector area. The collectors, as they are integrated into the roof, have a positive architectural effect and thereby an influence on the building's architecture.



Picture source: AEE INTEC

Key figures

- 124 single family row houses
- Heated area: 14800 m²
- 3000 m² roof integrated solar collectors
- 4500 m³ concrete water heat store, earth basin
- Price solar system including installation: 895000 € for 2940 m² collector area (ex. VAT)
- Solar gain: 49 % of total heat demand
- Auxiliary heating: gas burner, block heat and power plant

The solar system is a combined system, contributing to both domestic hot water preparation and space heating (low temperature heat distribution).

Solar collector:

Glazed flat plate water collector from Wagner & Co Solartechnik GmbH

Collector price: 298 €/m²



Picture source: AEE INTEC

GALLERY



PHOTOS; AEE INTEC

- Built/Completion:
1996
- Builder and operator:
Hamburg Gas works
- Architect: :
Architect Phillipi
- Planning:
ITW, Stuttgart
- Collector producer:
Wagner & Co Solartechnik
GmbH
- Address/Location:
Carsten-Reimers-Ring,
Braamwisch, Backhauskoppel,
Hamburg, Germany
- Type of project:
Multi-family house



- Read more: <http://www.oekosiedlungen.de/bramfeld/steckbrief.htm>, <http://www.aee-intec.at/0uploads/dateien354.pdf>