



2021

Client

Bietigheimer-Wohnbau

Architect

Werkgemeinschaft Böhme Hilse

Energy-generating glass balustrades

Within the framework of a collaboration with BGT (Bischoff Glastechnik), customized and semi-transparent green ASCA® organic photovoltaic (OPV) modules have been designed and manufactured, and then laminated into glass balustrades of a high-rise residential building in Möhringen. The energy generated by the glass balustrades, the first of their kind, is fed directly into the grid.

In addition to manufacturing the OPV components, ASCA also participated in planning the system integration, from cable routing and connection technology to the inverter.

While the balustrades are transparent from the inside, they are translucent from the outside, thereby guaranteeing privacy from the outside.



"For planners, architects and designers, the incredible potential of OPV opens up completely new possibilities in dealing with renewable energies."

Irina Janke
Planning architect - Werkgemeinschaft Böhme Hilse



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SOLUTION

Number of installed modules:

88 balustrades, 6 OPV modules per balustrade

Panel dimensions:

length 2,385 mm x height 1,100 mm

Total occupied surface: ≈ 200 m²

Application type: semi-transparent green ASCA® photovoltaic modules laminated into glass

Electrical system: grid-connected

PROJECT

Design & project planning

2015-2019

Production of OPV & pre-assembly

November 2020

Installation & commissioning

January 2021

TASKS

Overall design

Technical system development

Module design and production

Electrical system (incl. design)

OPV inlay assembly

Glass lamination

Steelwork

Electrical installation

CONTRIBUTORS

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ASCA

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