



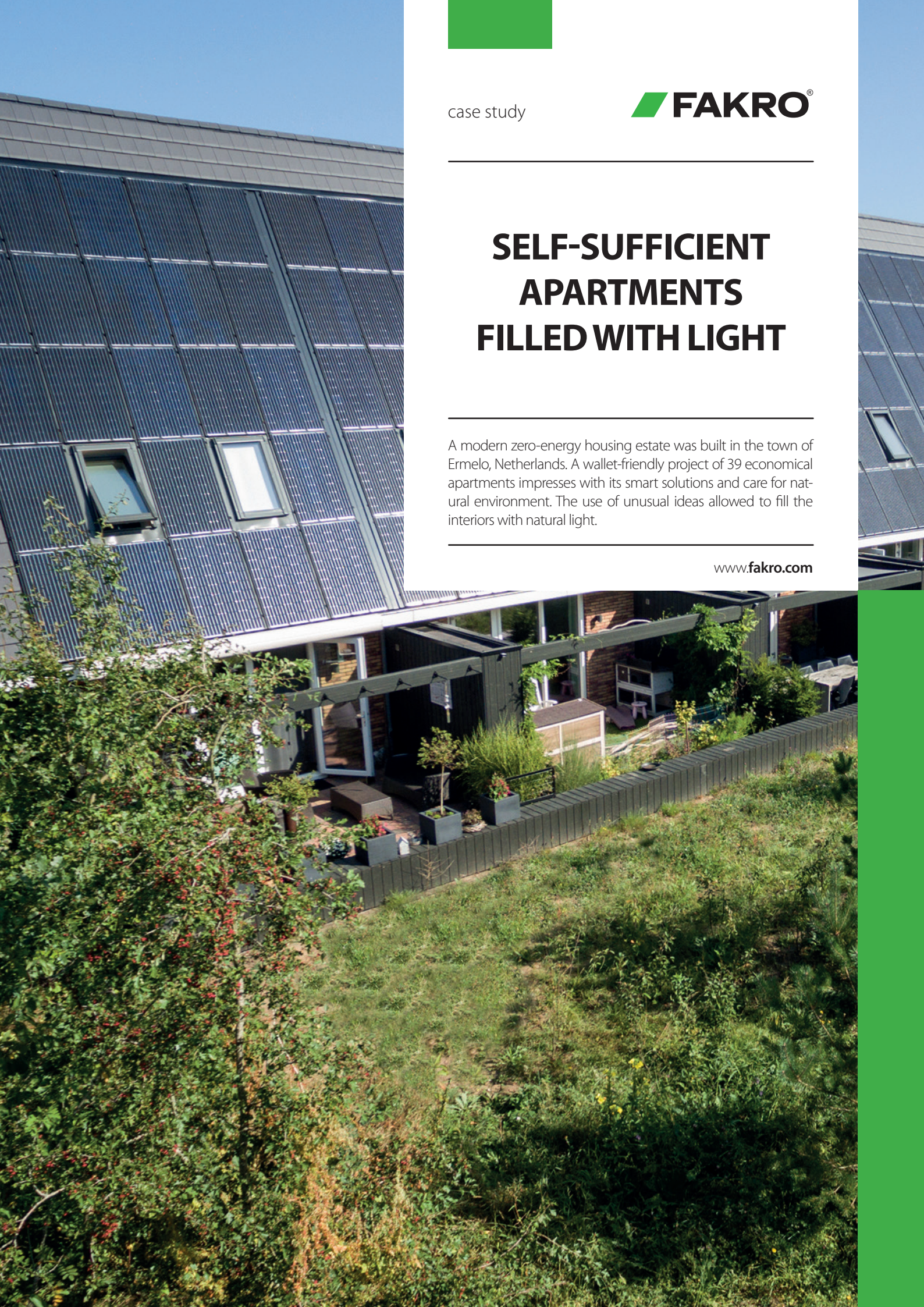
case study



SELF-SUFFICIENT APARTMENTS FILLED WITH LIGHT

A modern zero-energy housing estate was built in the town of Ermelo, Netherlands. A wallet-friendly project of 39 economical apartments impresses with its smart solutions and care for natural environment. The use of unusual ideas allowed to fill the interiors with natural light.

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Zero-energy buildings

Excellent insulation performance of buildings and photovoltaics used on the roofs make the housing estate in Ermelo self-sufficient. Now, thanks to wall insulation and FAKRO energy-efficient roof windows, it is easy to maintain the right interior temperature. This reduces the need for space heating in winter and cooling during hot weather. Solar panels, on the other hand, allow to power apartments with renewable solar energy. Residents can enjoy profits as they do not have to pay electricity or gas bills. Natural environment also benefits because solar-powered buildings do not emit pollutants from burning fossil fuels.

Jan van Eijsden, a councillor of Ermelo, addressed investors and residents with the following words: *"A total of 39 zero-energy apartments have been completed. Thank you very much for investing in this project. Live even more 'SMART' than before. Thank you once again!"*

Photovoltaics and roof windows?

Each apartment has been equipped with 23 photovoltaic panels that cover virtually the entire southern roof area. However, the project required the use of roof windows in the vicinity of the panels. Appropriate insulation parameters were not the only requirement to be met by these windows. The task was to install them in non-standard roofs with photovoltaic panels. FAKRO supplied specially manufactured flashings for tight and aesthetic installation of roof windows. The FTT U6 windows used here are designed specifically for energy-efficient construction. They feature excellent energy-efficiency performance, and the solutions applied, eg thermoPro technology, further increase their parameters.

Solar-powered awning blinds

The AMZ Solar awning blinds fitted to roof windows protect interiors from excessive heat gain, creating pleasant conditions for residents during the hottest weather. They are compatible with SMART HOME system. In addition, the AMZ Solar blinds come with solar panels, so they do not need power from the mains. By using solar energy and reducing the need for room cooling, they even more enhance the environmental value of the entire project.



INFORMATION

Building:	Groevenbeek Noord
Location:	Ermelo, Holandia
Design studio:	4D Architecten
Contractor:	Van Wijnen Midden B. V.
Used FAKRO products:	Roof windows FTT U6 Custom-made flashings Awning blinds AMZ Solar