

Case Study - BB-Custom

Solar doing justice to heritage architecture

How a listed school building in one of Rotterdam's most carefully preserved conservation areas modernised to renewable energy— without compromise.



The Setting

Skippy Daycare Centre is housed in a traditional school building in Kralingen — consistently Rotterdam's most established and sought-after residential district, with an educational history on this site stretching back to 1924. The neighbourhood is not merely well-regarded: it sits within a formally designated conservation area.

Kralingen Midden carries the status of 'rijksbeschermd stadsgezicht' — the Dutch equivalent of a nationally listed conservation area. The designation recognises the area's exceptional architectural and historical coherence: a medieval land-parcel structure still legible in today's street plan, a rich ensemble of high-quality period buildings, and surrounding green spaces that have remained largely intact for over a century.

Under the conservation area's local plan, any material change to a building's exterior — including the choice of materials — must satisfy strict aesthetic criteria set by the planning authority. The bar is, by design, high.

This is not bureaucratic formality. It is exactly the kind of oversight that keeps the integrity of heritage and do it justice for the future. For any project team working on a building within its boundary, it raises the bar on every material decision.

The Project

Retrofitting a listed building for today's energy demands is always a careful exercise in balance. The government's requirements for modernisation, insulation and energy standards are, however,

not optional. At Skippy, two imperatives had to be met simultaneously — and neither could be diluted to accommodate the other.

Heritage consent. The conservation area designation required any solar installation to be visually sympathetic to the building and the streetscape around it. Colour was the critical variable: the wrong finish, on any component, would not pass the heritage officer's review.

Safety that matches the setting. A building caring for young children holds its environment to a high standard for amongst other safety and hygiene. Introducing a solar installation means introducing a new set of considerations — ones that deserve the same quality of thinking as the installation itself.

The Solar Installation

The project team landed on the Eurenor MEPV Coloured Series — solar panels available in a terracotta finish. The warm, earthy tone was reviewed and met heritage demands as sympathetic to the existing material character of the conservation area. It was a considered choice: renewable technology made visually acceptable through precision of colour.

Securing consent for the panels, however, was only the start. Every component of a solar installation visible within the curtilage of a listed building carries the same scrutiny. The protection system around the panels was no exception.

The Solution: BB-Custom

BirdBlocker's protection system works by securing the space beneath solar panels using a robust clip-based system of interlocking strips — blocking access for birds, rodents and other wildlife without impeding airflow or requiring any penetration of the panel or roof structure. The material itself is reinforced with an anti-rodent agent, protecting cables and connectors against the destructive gnawing that makes unsecured installations so vulnerable to wildlife intrusion. TÜV-certified, UV- and frost-resistant, it is designed with the full demands of long-term solar protection in mind — a considered specification, not an afterthought.

The standard range comes in three heights — BB85, BB125 and BB200 — to suit the full variety of panel configurations and mounting systems on the market. For the vast majority of installations, that is exactly what is specified.

For this conservation area project, the standard range was not the answer. Not because of performance — but because of colour.

BB-Custom takes the same proven system and produces it to order in any RAL colour. For this project, that meant terracotta: a precise match to the Eurener panels, approved by the heritage officer as part of the wider installation consent.

The Custom line is not an off-the-shelf adaptation. Each order is a bespoke production run, built from the same UV-stabilised, rodent-resistant material as the standard range. The custom colour changes little about durability, fit, or protective performance. What it changes is the ability to disappear into the installation — visually when full-black installations are not an option, and in terms of the planning process.

For this project, the result was:

- A terracotta-finished system matching the approved RAL colour palette of the installation
- Full compliance with the consent conditions for the conservation area
- Active protection against the risks that any unmanaged solar installation carries: fire from accumulated nesting material,

corrosion from acidic droppings, cable damage, reduced thermal performance, and hygiene concerns

- A specification held to the same standard of care as every other element of the project

The Outcome

Skippy Daycare Centre in Kralingen now operates a solar installation that meets the strict aesthetic conditions of a nationally designated conservation area, and actively safeguards the installation for the long term.

BB-Custom proved the right specification for exactly this type of project: one where colour approval is a condition of planning consent, where the integrity of the installation matters from every angle, and where quality cannot stop at the panel edge.

BB-Custom is the answer to modernizing listed buildings because it is designed to enhance appearance by becoming invisible. It keeps the appearance intact, protects the architect's vision and preserves for the future without compromising modern standards.

Why This Matters

The Netherlands alone has over 300 nationally designated conservation areas. Across Europe — and the UK in particular — the stock of listed buildings and conservation areas runs into the hundreds of thousands, and the pressure to bring them to modern energy performance is growing steadily.

The challenge is consistent: renewable technology must be integrated without compromising the visual character that earned the building its listing in the first place. Colour-matched solar panels are increasingly the solution that heritage officers and conservation authorities happily consent to. Adapting to 21st century demands while retaining history's aesthetics. The terracotta of the 19th century was complimented by seamless integration of modern technologies. But the same challenges appear with verdigris on copper roofs, grey on slate and countless other applications that typically challenge modernising historic architecture.

BB-Custom slots into that gap: Sympathetically. Durably. And without concession on performance.

About BB-Custom

BB-Custom is the colour-matched solar protection system for projects where appearance is part of the planning brief. Produced to order in any RAL colour, it is built on the same TÜV-compliant, UV-stabilised, rodent-resistant construction as the full BirdBlocker range — available in BB85, BB125 and BB200.

