Dutch Solar Design
BIPV solutions
Dutch Solar Design Photovoltaics

- Versatile, full colour solar panels and building elements
- Combines aesthetics, performance and durability
- Enables energy neutral high density built environment
- Freedom of architectural design
Introducing the Dutch Solar Design project*

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Acceptance of PV in public space
‘UNS Design’ in public space
Versatile, full colour solar panels and building elements

Dutch Solar Design photovoltaic building elements
DSD-PV, www.dsd-pv.nl

Solar panel (back contact technology)
Full colour print inside module
Aluminium back & fixture

Freedom of design
Freedom of shape, sizes
PRINT COVERAGE AND OUTPUT IS CONTROLLED THROUGH DESIGN SOFTWARE
PROVIDING A COLORED DESIGN LAYER IN A BALANCED COVERAGE RATIO
Black & white patterns

2x2 cells minimodule
Any colour, any pattern

5x7 cells

900 x 1200 mm² building element
Based on images

5x7 cells
900 x 1200 mm$^2$ building element
Fitting in bigger picture

- Individually designed modules as part of a larger (building) canvas
- Blending in with surroundings
Combines aesthetics, performance and durability

**Full coloured PV: Performance**

- **based on coverage**
- **standard glass**
- **textured glass**

*Sweet spot*
Durability, outdoor, UV and climate chamber testing

![Image of solar panels and climate chamber](image)

**Graph: Full Al rear laminate $\Delta P_m$**

- A4037 wit
- A4037 cyaan
- A4124 wit
- A4116 wit

**Graph: Plot of $I_{sc}$ (A), corrected for GI vs. Time (hours)**

- 0% to 500 W/m²
Freedom of design: Mimicking building materials

Dutch Solar Design: Solar bricks
Dutch Solar Design: Solar bricks

900 x 1200 mm² building element
RESEARCH LABORATORY GRONINGEN
CASE STUDY

DSD-PV

UNSTUDIO

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WE ARE EXCITED ABOUT THIS NEW PRODUCT:
-COST EFFECTIVE AND MASS CUSTOMIZABLE
-NEW DESIGN POSSIBILITIES, WITH HIGH ELECTRICITY YIELD
-CONVINCING AESTHETICS SO PEOPLE WILL CHOOSE THIS PRODUCT
-IN PRODUCTION IN THE COMING YEAR...!

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Thank you for your attention!

www.dsd-pv.nl