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1 *The solar cells behind the colored glass are only visible at a close distance.*
2 *Different colored module samples, demonstrating the unlimited color variety.*

COLORED PV MODULES FOR BUILDING INTEGRATION

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Colored PV modules strongly support the acceptance and attractivity of building integrated PV (BIPV). Especially architects and building planners desire an individual color choice, saturated colors, a homogeneous appearance for all possible viewing angles and at the same time a high module efficiency. The demand grows rapidly – builders from around the world increasingly ask for self-sufficiency of their buildings.

With our newly developed colored modules, Fraunhofer ISE contributes to appealing and energy-efficient buildings. The smooth and powerful, individually adjustable color and the high efficiency of the implemented modules is unique in the building sector.

Characteristics of the Colored Layer
The layer is a 3D photonic structure, inspired by the Morpho-Butterfly and made of dielectric materials. The special layer set-up allows a very high color saturation and a very good angular color stability to be reached.

Compared to an uncoated cover glass, the loss of generated solar power is 7%. The power loss is about the same for all colors.

Features of Colored BIPV Modules
- only 7% transmission losses caused by the colored layer
- individual color choice
- saturated colors
- good angular color stability
- reduced glare effect

Our Offer for Interested Partners
- architectural reference objects with individual designs, manufactured at Fraunhofer ISE
- partnership for the further development and upscaling of the processes with module or glass manufacturer or glass processor

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