



Photocatalytic HDPE Cladding

SLAT-TYPE CLADDING MADE FROM RECYCLED HDPE FOR DEGRADATION OF ATMOSPHERIC POLLUTANTS

KEY WORDS

PHOTOCATALYSIS,
RECYCLED HDPE,
COATINGS

DESCRIPTION

Architectural cladding, a slat-type material made from recycled high-density polyethylene (HDPE), incorporating photocatalytic properties for the degradation of atmospheric pollutants in urban environments. It combines architectural design, materials engineering, and environmental validation to create an active construction solution that contributes to air purification and the advanced use of recycled plastics in architecture.

Slat-type architectural cladding manufactured from recycled high-density polyethylene (HDPE), incorporating photocatalytic properties for the degradation of atmospheric pollutant gases in urban environments. It combines architectural design, materials engineering, and environmental validation to generate an active construction solution that contributes to air decontamination and advanced use of recycled plastics in architecture.

POTENTIAL BENEFITS OR IMPACTS

Reduction of urban air pollutants;
Innovation in active architectural cladding systems;
Advanced use of recycled plastics;
Positive impact on urban health

TECHNOLOGY MATURITY LEVEL (TRL)

TRL 4: laboratory validation

AREA OF APPLICATION

Plastics
Architecture
Urban construction

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