

Industrial Machinery

Photovoltaic Cell

Amorphous silicon photovoltaic cells are produced by coating stainless steel precision strip with three light-sensitive layers. These are sensitised for blue, green and red respectively so the full spectrum of visible light can be used.

The sandwich of stainless steel and the photovoltaic coating can be adhesively bonded to nearly any smooth surface. A protective layer protects the cell from weather.

The total thickness of the triple junction cell is below 1 μm . Deposited on an ultra-thin stainless steel foil, this type of cell is flexible and can even follow curved roof geometries.



Location/environment | USA/OUTDOOR

Product | STAINLESS STEEL STRIP

Fabrication process | ROLL-TO-ROLL VACUUM DEPOSITION

Grade/surface | 416/BRIGHT ANNEALED

Material thickness/diameter | 0.13 MM (0.005 INCHES) THICK

Weight | 2.8 KG SQUARE METRE

Competing material

Date of completion

Manufacturer | UNITED SOLAR OVONIC (UNI-SOLAR.COM)

Material supplier

Source of information | ISSF SOLAR ARCHITECTURE PROJECT

Remarks

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