

GIELLENERGY-TILE® Ultra, with 4 PV cells

GIELLENERGY-TILE® Ultra, with 4 PV cells, is a photovoltaic tile designed to offer total architectural integration and compatibility with the main types of clay tiles on the EU market, as well as **GIELLENERGY-TILE® Standard** doubling the size has been necessary to break down the implementation times of the product and its time for installing it, plus halving connections, by achieving our goal of reducing costs by 25% compared to **GIELLENERGY-TILE® Standard**. After installation, thanks to interspaces reproduction (unique on the market) there is no visible difference between the two models



ROOF SURFACE, NECESSARY FOR 1 KWp: 7,50m² (only PV Roof tiles)

GIELLENERGY-TILE® Ultra Necessary For 1KWp POWER : 50 pcs

GIELLENERGY-TILE® Ultra Necessary For 3KWp POWER : 150 pcs

Nominal Power : 1 pc GIELLENERGY-TILE® ULTRA : 20,00 Wp (available October 2017)

GIELLENERGY-TILE® Ultra is made of thermoplastic resin, designed to support heat levels, reaching 200 °C. Inside the thermoplastic resin part is housed the photovoltaic module made of 4 standard monocristalline cells 156X156 mm, encapsulated by EVA, all covered with low-iron, tempered, high transmittance (> 92%), photovoltaic glass.

COMPATIBILITY: GIELLENERGY-TILE® Ultra, are compatible with all types of solar inverters, accumulators and accumulation devices on the market, such as Powerwall, with more competitive cost.

TECHNOLOGY AND EFFICIENCY: GIELLENERGY-TILE® Ultra has been developed to optimize exposure to sunlight; In fact, the shape of the tiles is such that, at any time of day, the shadow zones are reduced to zero.

GIELLENERGY-TILE® Ultra is equipped with a bypass diode in order to exclude, in case of failure, malfunctioning and accidental shadow, only the affected tile loosely so the continuity of the entire string, avoiding the "HOT-SPOT" effect. In addition, the **GIELLENERGY-TILE® Ultra** is designed to maximize heat dissipation so that it remains within the optimum operating range. As well as to ensure traversability (max. 75 kg) during installation and maintenance.

RESISTANCE: The mechanical resistance and weathering of the **GIELLENERGY-TILE® Ultra** is much higher than that of traditional terracotta tiles; In fact it is able to withstand a homogeneous load on the surface of 5,400 Pa and 25 mm hail balls, falling with speed more than 83 km/h.

ECOSUSTAINABILITY: GIELLENERGY-TILE® Ultra is a 100% recyclable photovoltaic tile with total architectural integration aimed for the realization of photovoltaic roofs with low visible architectural impact. It is aimed at all those who care about the environment and energy saving, without however altering the aesthetic appearance of the buildings. Each **GIELLENERGY-TILE® Ultra** at the end of life cycle, after being separated by photovoltaic cells, electrical wiring, which will be differentiated, can be recycled to 95%, minimizing waste generation,

INSTALLATION : The mounting of the **GIELLENERGY-TILE® Ultra** is virtually identical to the common clay tiles. They use the same battens and the same method by obtaining a fully and truly integrated photovoltaic roof. They also have a simple and effective system for fastening that is achieved by common screws, which prevents it from moving in any weather condition and minimizing the possibility of theft. Lastly, the installation minimizes the intervention of specialized electric personnel. With small adjustments it is possible to install them into any type of roof tiles on an existing roof, obtaining a considerable lightening since the weight of a **GIELLENERGY-TILE® Ultra** is equal to less than 40% of any clay tile weight.

On demand **GIELLENERGY-TILE® Ultra** can be produced in any colors practically identical to the context where they are installed, such as nature parks, playgrounds, schools, so as to minimize the environmental impact. It is also possible to make them with self-extinguishing thermoplastic resins according to "UL 94 V0", if required.

WARRANTY : **GIELLENERGY-TILE®** is guaranteed for 10 years for manufacturing defects And electrogeneration guaranteed: 90% for 10 years electrogeneration guaranteed: 80% for 20

7ca WORLD INTELLECTUAL PROPERTY ORGANIZATION

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