

STRUCTURE FOR INTEGRATED PHOTOVOLTAIC SYSTEM

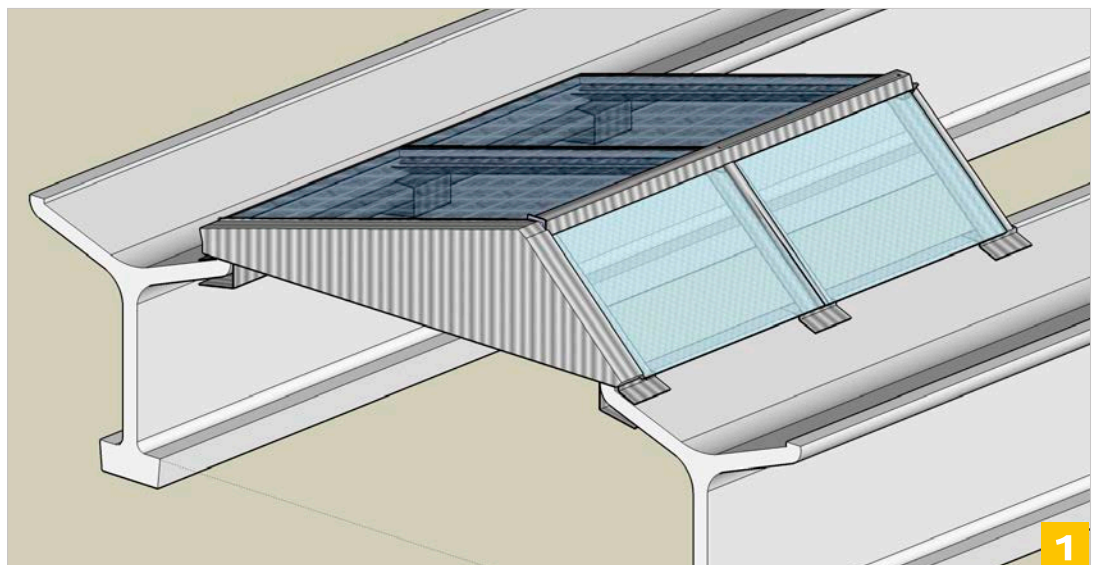
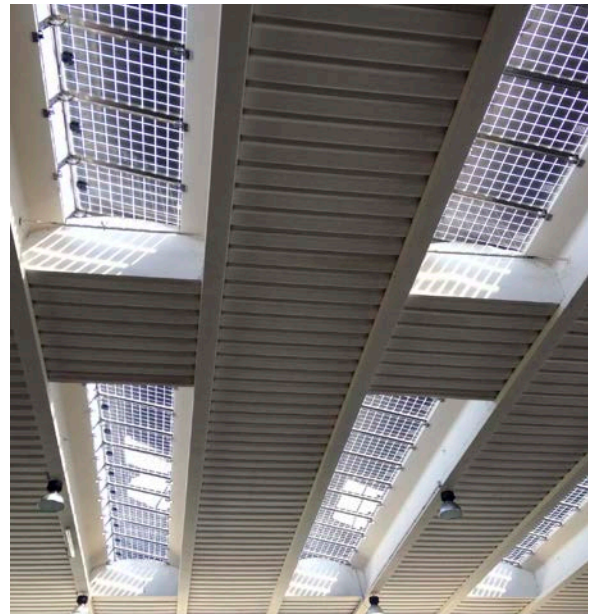
The structure has been developed thanks to a collaboration with **PR.EN.AL. srl** (for the research of innovative solutions in support structures of the modules and architectural integration). It can replace the typical shingles in fiber cement or asbestos. The frame, entirely made of **AISI 304 stainless steel**, is fastened to the Y beams with special pliers, which avoid damages and perforations of the beam (preserving the original mechanical characteristics).

The PV module, becoming a structural component, contributes to strength and lightness. This system ensures **weather resistance**, particularly to water, wind and snow (tested for loads of 540 kg/m) avoiding the use of polymer seals. The solution we propose also avoids overload of the beams.

Actually, the weight of the system is about 20 kg/sq m, which is comparable to the shingles they replace. On their back side, these structures feature transparent polycarbonate windows that allow natural lighting inside the building. The windows are also proposed with automatic opening. The polycarbonate we use is guaranteed to resist hail and is coated with a UV film.

This system also improves the natural air circulation avoiding condensation. It can be adapted not only to different types of Y beams, but also for traditional pitched roofs and canopies.

A further advantage of this structure is that it is not subject to the "sail effect" and therefore resists to the wind.





2 Power : 2000 kWp

3 Power : 30 kWp

4 Power: 106 kWp

