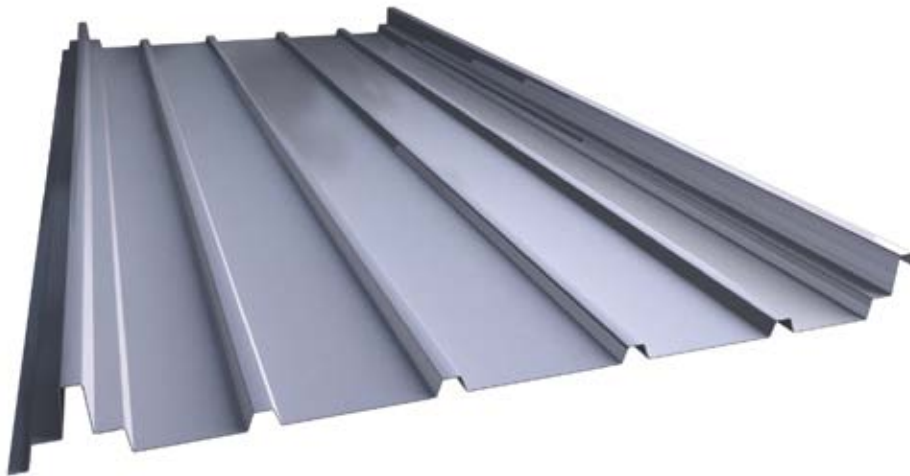
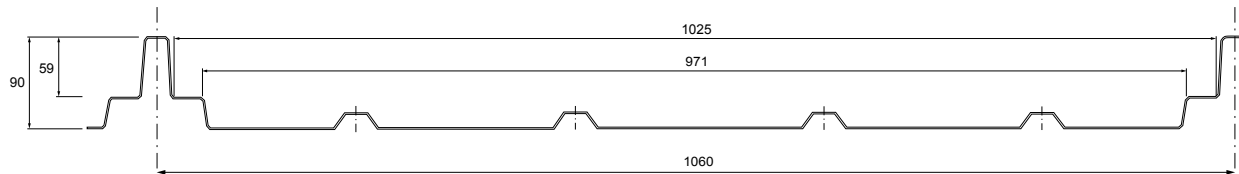


# ecoGr 1000



**Ecogr 1000** – corrugated panel designed to house photovoltaic panels with a metal frame approximately 1,000 mm wide.

The measurement tables given should be considered to apply to corrugated panels subject to loads perpendicular to the section. The values given in the tables have been obtained from experimental trials conducted according to the requirements of the standard UNI EN 1993-1-3:2007 (Appendix A – section A2.2).

The values given in the tables do not place limitations on deflection. All panels have passed concentrated load tests (footprint) applied centrally and conducted according to the requirements of the standard UNI EN 14782:2006 (Appendix B).

## Aluminium alloy – Collapse pressures [kN/m<sup>2</sup>]

	Distance between supports [m]		
Thickness [mm]	1.25	1.50	2.00
0,80	4.32	2.85	-
1,00	8.96	6.10	-

## Steel - Collapse pressures [kN/m<sup>2</sup>]

	Distance between supports [m]		
Thickness [mm]	1.25	1.50	2.00
0,60	5.69	4.02	-
0,80	14.44	7.36	-



The following simulation tests have been done for the panels in operation with the photovoltaic unit installed:

• **Ideal conditions:** load concentrated on a distributed support (uniform load line).

• **More challenging conditions:** load concentrated (on a limited line) in the centre.

The tests prescribed five consecutive loading and unloading cycles. In the first two cycles a maximum load was reached corresponding to the characteristic snow load value laid down in D.M. (Italian Ministerial Decree) 14/01/2008, equal to 1.2 kN/m<sup>2</sup>. Subsequently, loads were tested of up to 4 times the characteristic snow load. No relevant deformations were found in operating conditions, therefore the system can be considered elastic.

#### Reference standards :

• Thickness tolerances	UNI EN 10143
• Hot coated steel	UNI EN 10346
• Stainless steel	UNI EN 9445
• Aluminium alloy	UNI EN 485/2-4
• Pre-painted steel	UNI EN 10169/1-2

#### Corrugated panel lengths :

- Maximum 13 metres
- Minimum 1.65 metres

#### Packaging :

- Each order is managed in the same way for individual items.
- All parts of the packaging give the tare for weight of each item.
- Each item is wrapped in polyethylene film.
- Special packaging must be agreed on at the order stage.

#### Installation and maintenance requirements :

- The roof slope must be at least 5% if there is no overlap or 7% if there is an overlap.
- Roof surfaces that are not subject to natural washing with rainwater, require the following regular maintenance:
  - an annual wash-down without using abrasive or harsh products
  - immediate and systematic treatment of any parts showing the beginning of corrosion.
- Customers must check the state of the covering on an annual basis and any preventative maintenance must be carried out according to the principles of good workmanship and in compliance with current regulations.