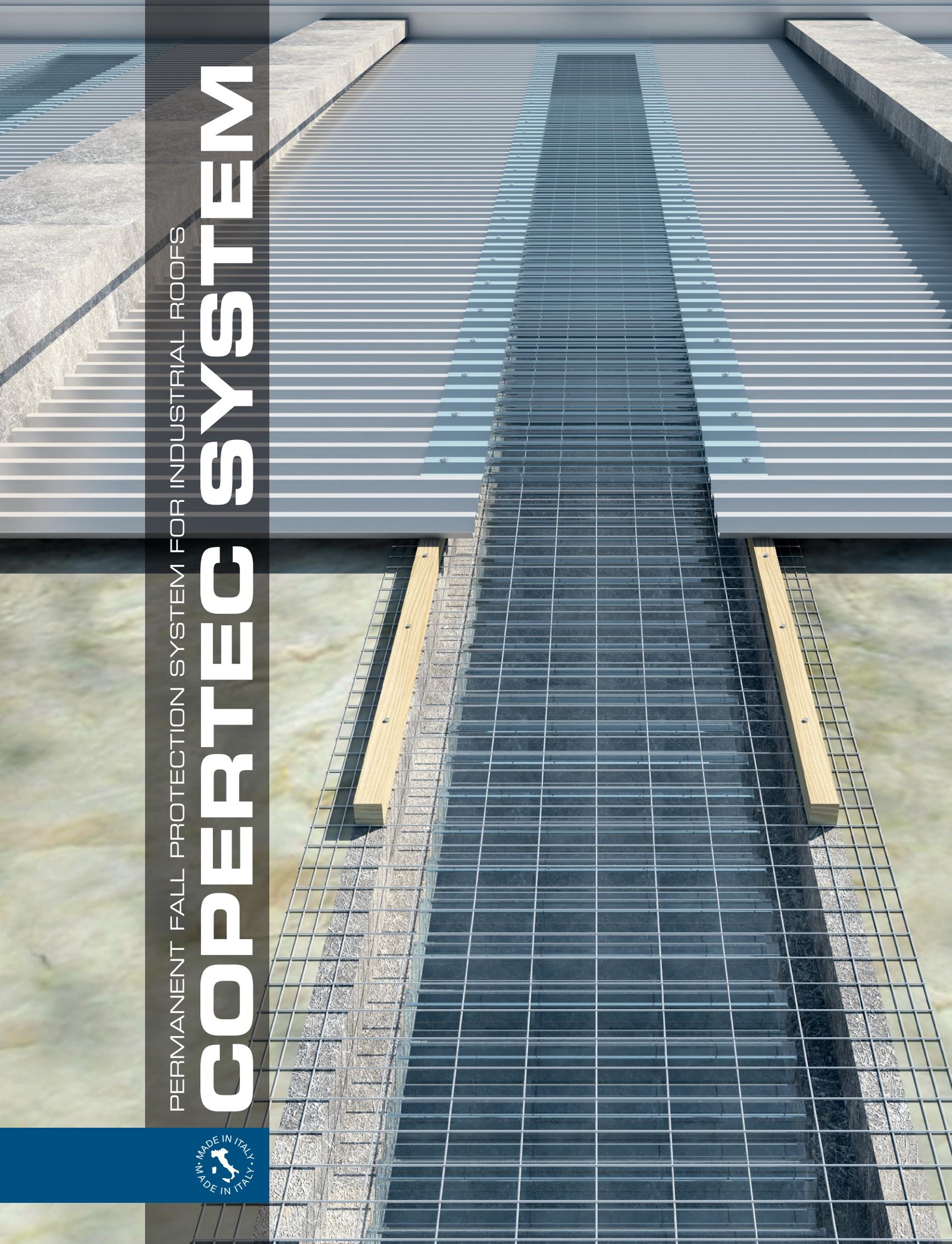


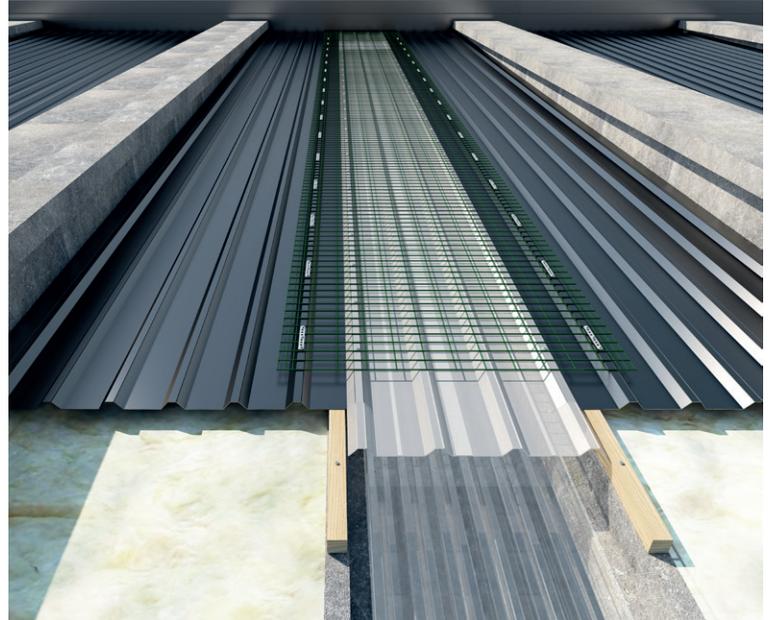
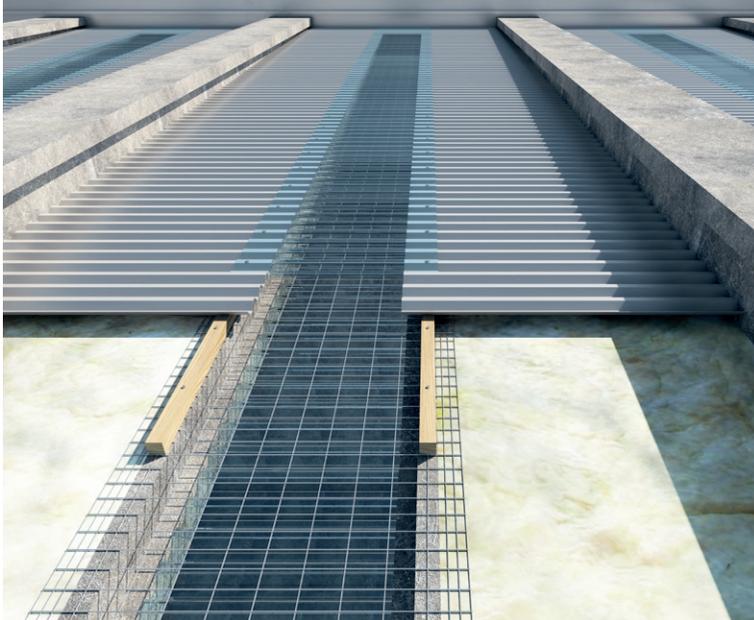
PERMANENT FALL PROTECTION SYSTEM FOR INDUSTRIAL ROOFS

COPERTEC SYSTEM



THE SYSTEM

Permanent fall protection system to protect non-walkable skylights, to be applied internally on the load-bearing roof frame or externally on double-sheet sandwich panels or on corrugated/wavy metal sheets. It is designed to protect against the risk of falling during the maintenance of roofs of buildings for industrial/agricultural use, and envisages the use of the Copertec fall protection net (or its alternative Coperplax) to be fitted in combination with specific accessories. It is necessary to follow the installation instructions described in this Technical Agreement n.650, a document issued by the National Research Council - Institute for Construction Technology (ITC-CNR).



The Technical Agreement n.650, issued by the National Research Council - Institute for Construction Technology (ITC-CNR), is the result of a complex assessment which involves carrying out several tests and investigations, which lead to the formulation of a favorable technical judgment regarding the suitability for use of materials, components and systems, and to constant verification of the endurance products performance. This activity is carried out within the European network of UEAtc (Union Européenne pour l'Agrément technique dans la construction), of which the Institute was one of the founders back in the '60s.



Galvaplex Process is a plasticization process, developed by Cavatorta, which gives Coperplax mesh extreme strength and durability, carried out through the combination of different protective elements: galvanisation, primer and PVC. The hot-dip galvanised steel base wire is dipped in a bath of special primer, which is essential for a perfect anchorage of the PVC to the metal. This is followed by plasticization using a fluidised bed melting process, which guarantees a clean and homogenous coverage over the entire surface of the mesh.

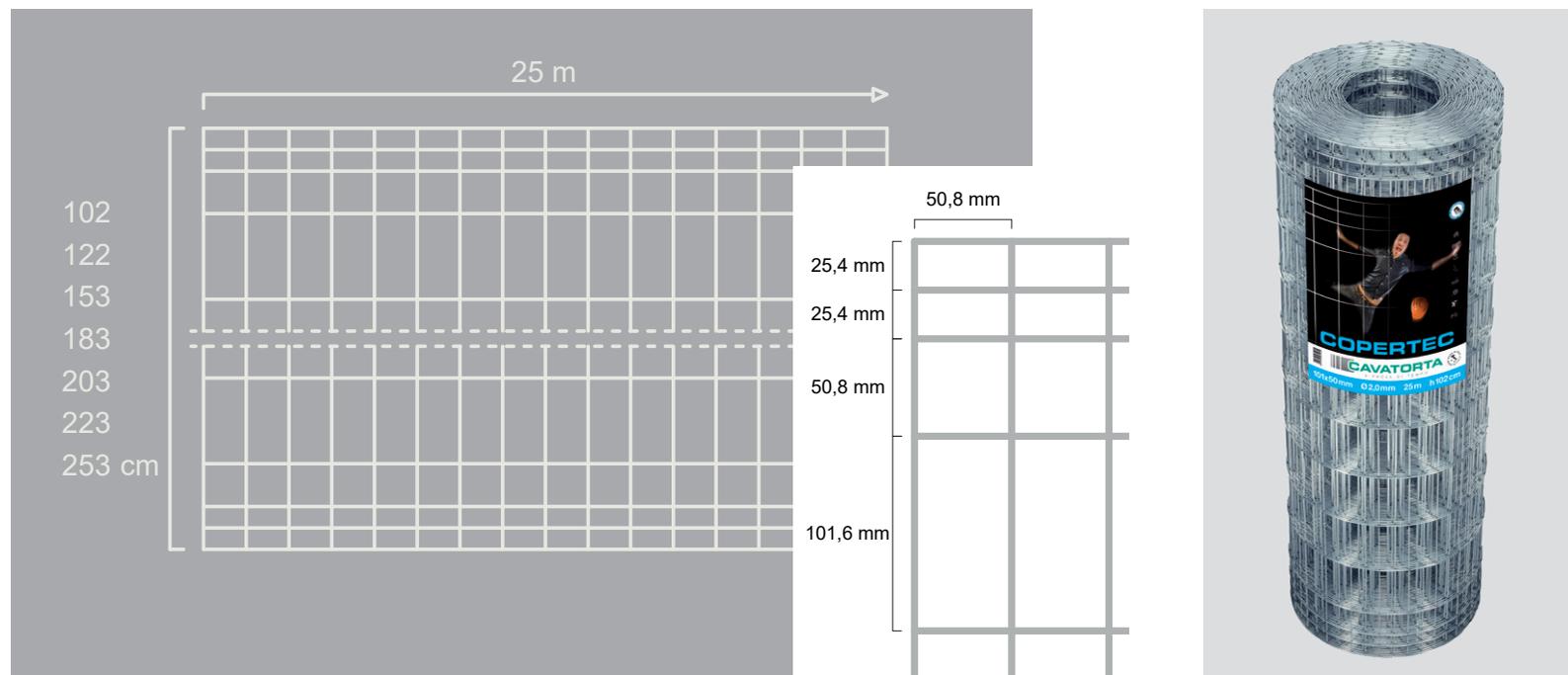




COPERTEC

Electro-welded mesh with triple selvedge. The horizontal and vertical wires, both linear, are made of galvanised steel before welding.

Copertec mesh is supplied in 25 m rolls, packed on pallets of 9 rolls each, wrapped in recyclable polyethylene film.



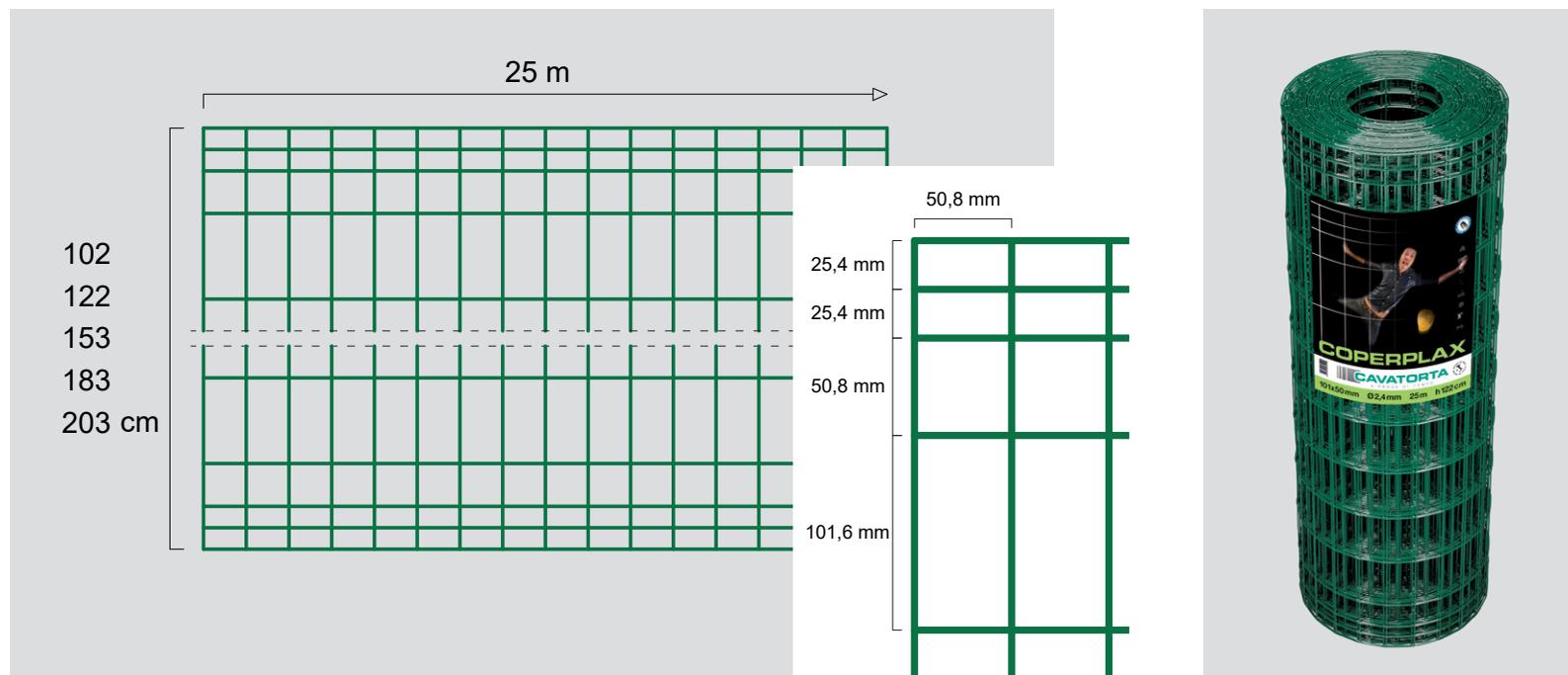
H cm	roll kg	kg/m ²	pallet kg each	ø zinc wire mm
102	21,5	0,84	204	2,00
122	25,5	0,84	240	2,00
152	31	0,82	289	2,00
183	37	0,81	343	2,00
203	40	0,79	370	2,00
223	46	0,82	402	2,00
253	52	0,82	455	2,00

general characteristics	value	unit of measurement	international norms
single wires max. tensile strength	450-550*	N/mm ²	-
welding resistance point	≥757	N	ASTM.A 185-06
zinc coating type	hot dip	-	UNI - EN 10244-2
zinc purity grade (SHG)	~ 99,995%	-	UNI - EN 1179
zinc adherence	1 (excellent)	-	UNI - EN 10244-2
zinc coating thickness	~10	µm	-
roll length tolerance	-0/+1	%	-
Ø wire tolerance	0,04	mm	UNI - EN 10218-2



COPERPLAX

Electro-welded mesh with triple selvedge. The horizontal and vertical wires, both linear, are made of galvanised steel. Plastic coating is carried out by means of the unique Galvaplax sintering process developed by Cavatorta. Under normal conditions of use, performance is guaranteed for more than 10 years. Coperplax mesh is supplied in 25 m rolls, packed on pallets of 9 rolls each, wrapped in recyclable polyethylene film.



H cm	roll kg	kg/m ²	pallet kg each	ø zinc wire mm	ø pvc wire mm
102	23,5	0,92	222	2,00	2,40
122	28	0,92	262	2,00	2,40
153	34	0,89	316	2,00	2,40
183	40	0,87	370	2,00	2,40
203	44	0,87	406	2,00	2,40

general characteristics	value	unit of measurement	international norms
single wires max. tensile strength	450-550*	N/mm ²	-
welding resistance point	≥757	N	ASTM.A 185-06
zinc coating type	hot dip	-	UNI - EN 10244-2
zinc purity grade (SHG)	~ 99,995%	-	UNI - EN 1179
zinc adherence	1 (ottima)	-	UNI - EN 10244-2
zinc coating thickness	~10	µm	-
plastic thickness	~0,20	mm	UNI - EN 10218-2
plastic coating process	sintering	-	UNI - EN 10245-2
color	bright alpine green	-	-
roll length tolerance	-0/+1	%	-
Ø zinc coated wire tolerance	0,04	mm	UNI - EN 10218-2
Ø plastic coated wire tolerance	0,15	mm	UNI - EN 10218-2

ACCESSORIES

Installation kit: Stainless Steel Plate, EPDM gasket, rivets.



INDOOR INSTALLATION

The system is positioned underneath the non-walkable plastic skylights to be protected and is anchored directly onto the load-bearing structure of the roof following one of the Installation layouts B or C. For the anchoring of the net (Copertec or Coperplax) 3 options of different profiles and 3 options of screws are given to choose from, depending on the type of structure to be anchored.

TYOLOGY OF STRUCTURES ON WHICH TO ANCHOR

- Solid wood, glulam and similar beams; however load-bearing in nature
- Reinforced concrete or structural concrete beams, pre-stressed reinforced concrete roofing tiles, hollow-core concrete structures with at least 50 mm of bearing slab
- Steel beams (IPE-HEA) tubular with a minimum thickness of 3.00 mm – Purlins

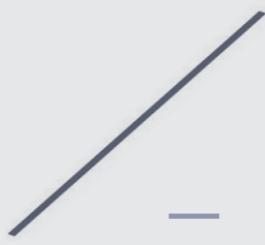
ANCHORING ELEMENTS



Load-bearing beam in structural timber 50x40 mm



L-profile in steel 2 mm thick S235JHR ZN hot laminated - 30x30 mm



Steel plate S235JHR sp. 3 mm ZN hot laminated 30 mm

FASTENING ELEMENTS



For reinforced concrete or structural concrete beams; pre-stressed reinforced concrete roofing tiles, clay-cement mix structures with composite slab of at least 5.00 cm;

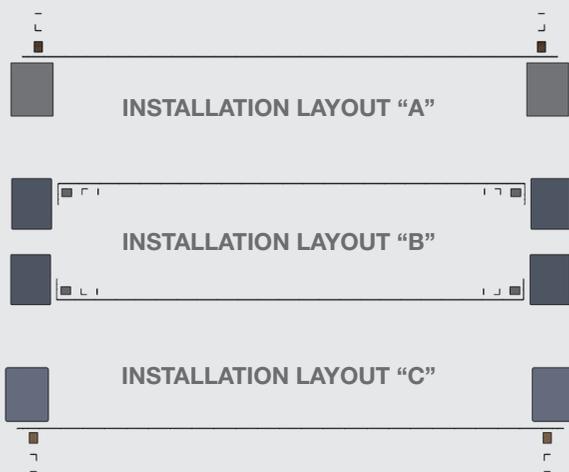


For load-bearing solid wood beams, plywood beams and similar wood-based materials;

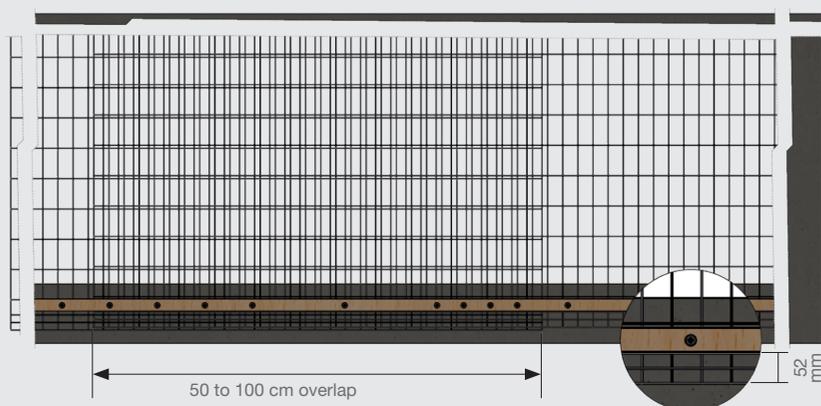


For tubular steel (IPE-HEA) beams with minimum thickness 3.00 mm; purlins.

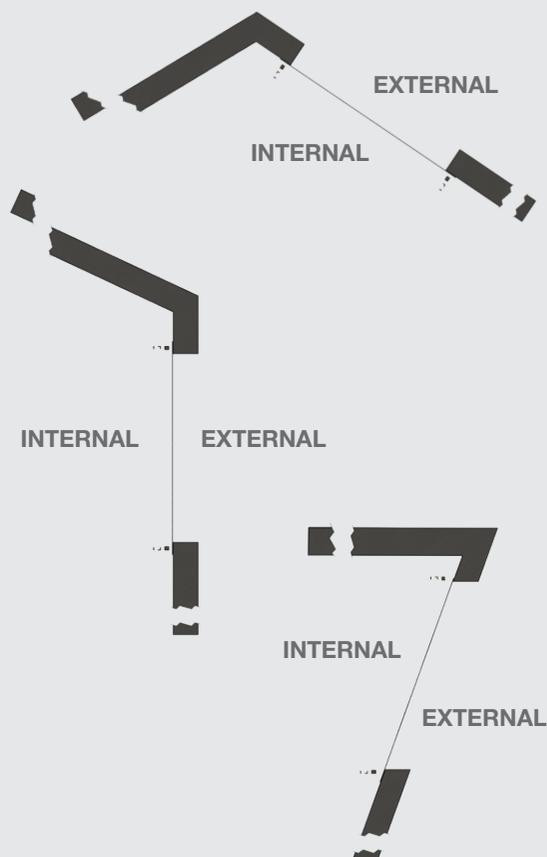
HORIZONTAL APPLICATION



OVERLAPPING



INCLINED APPLICATION





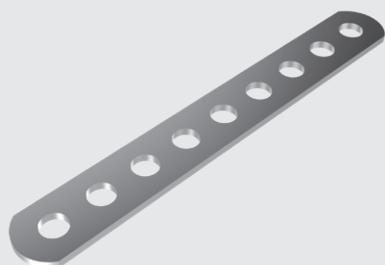
OUTDOOR INSTALLATION

In the case of roofs clad with double-sheet sandwich panels or corrugated/wavy metal sheets of suitable thickness and adequately anchored to the structure underneath, the system can be anchored directly onto them, above the plastic skylights that cannot be walked on to be protected, following one of the installation layouts D and E. In this case, since the net is exposed to atmospheric agents, it is necessary to use the net in its plastic-coated version (Coperplax), anchoring it with appropriate accessories (stainless steel plate with relative EPDM gasket, 3 rivets per plate).

TYOLOGY OF STRUCTURES ON WHICH TO ANCHOR

- Corrugated or ribbed metal sheets in steel (min. thickness 5/10) or aluminium (min. thickness 7/10)
- Double-sheet sandwich panels in steel (min. thickness 4/10) or aluminium (min. thickness 6/10)

ANCHORING ELEMENTS



Stainless Steel Plate



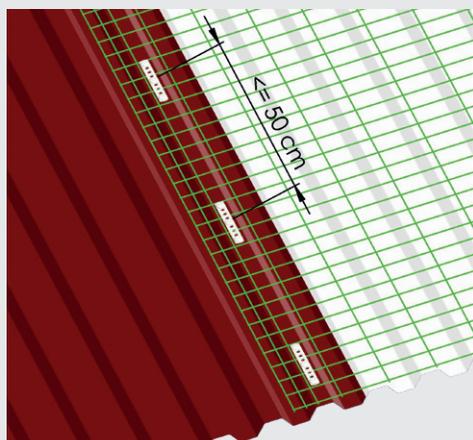
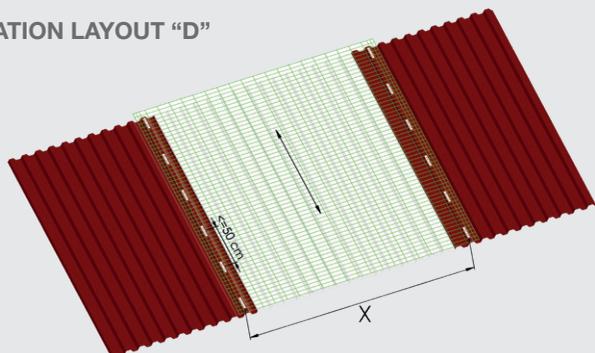
EPDM gasket



no. 3 rivets per plate

CORRUGATED / WAVY METAL SHEETS PARALLEL TO ROLL LENGTH

INSTALLATION LAYOUT "D"



CORRUGATED / WAVY METAL SHEETS PERPENDICULAR TO ROLL LENGTH

INSTALLATION LAYOUT "E"

