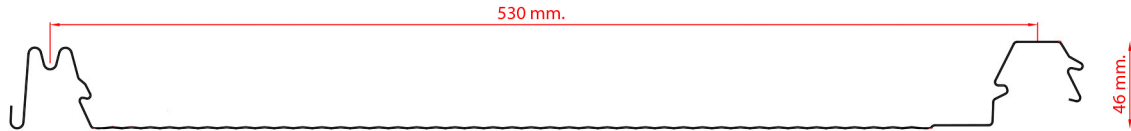


Melathron

Mela_dRain 530 Technical Sheet



Mela_dRain530

Mela_dRain530 covering system made up by metal profiles as long as the entire roof with a double drainage canal that guarantees impermeability in the most difficult weather conditions even with pitches of less than 1% (minimum recommended pitch 0.5%).

Securing the covering plates to the underlying structure is guaranteed via 1.7 mm thick plastic-coated steel stirrups and stainless steel screws without making holes in the plates themselves. This allows for free movement due to thermal expansion and eliminates the phenomenon of electrolysis between the stirrups and covering mantle.

Technical features:

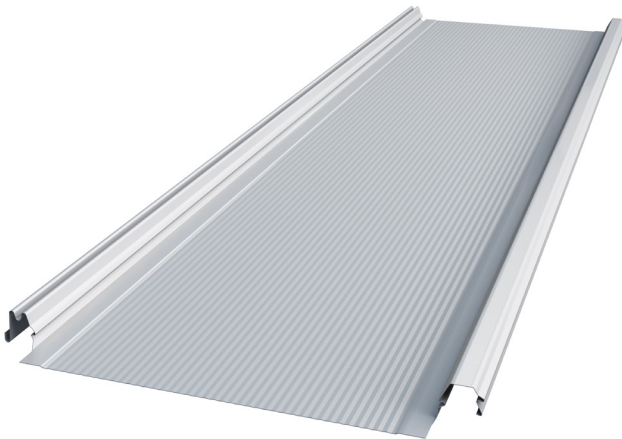
Plate width: 530 mm

Height: 46 mm

dRain_Fix stirrups:

Material: 15/10 steel coated in 2/10 PVC

The dRain_Fix technology allows the plate to be secured without making holes and lets it move freely as a result of thermal expansion. It is supplied with 2 stainless steel screws to secure onto the steel omega profile or wood slat.



Materials:

- Natural pre-varnished aluminium, 5754 H18 UNI EN 485-2/1996 alloy, 0.7 - 0.8 - 1 mm thickness.
- Aisi 304, Aisi 316 UNI EN stainless steel, 0.6 mm thickness.
- CU-DHP R240 UNI EN 1172 copper, 0.6 - 0.8 mm thickness.
- Natural/pre-coated titanium zinc, EN 988 Zinc-Copper-Titanium alloy, 0.7 - 0.8 mm thickness.
- Zinc-plated pre-varnished steel, 0.6 - 0.7 - 0.8 mm thickness.
- AZ185 Aluzinc, 0.7 - 0.7 - 0.8 mm thickness.

System performance:

- Single-piece plates as long as the roof without head joints
- Covering anchorage without through-holes, using stirrups that guarantee free thermal expansion.
- Guaranteed impermeability in any weather conditions.
- High capacity and walkability features.
- Maximum hold and resistance against pressure and suction.

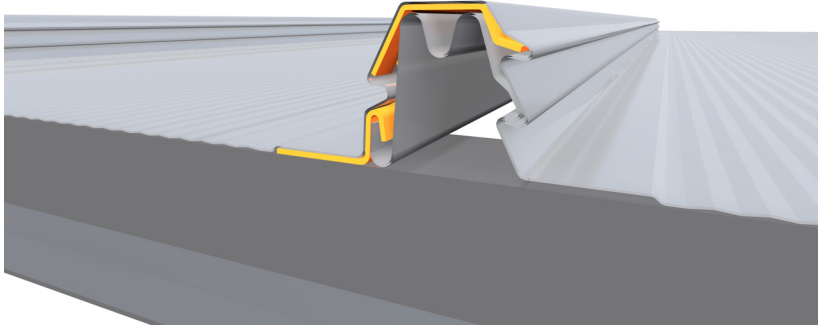


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dRain_Fix stirrups in plastic-coated steel:

The stirrup coating guarantees:

- Elimination of the phenomenon of electrolysis.
- Excellent movement of the covering plate which, due to thermal expansion, can move without the metals touching.
- Reduced thermal bridge: the cold outside the covering finds an element (PVC) with a lower thermal transmittance compared to polyamide and steel.



GEOMETRIC FEATURES (in reference to one metre)				
	thickness mm	Jx mm ⁴	Wsup mm ³	Winf mm ³
Tense lower edge	0,60	189229	5253	18961
	0,70	219136	6094	21826
	0,80	250594	6978	24836
Compressed lower edge	0,60	75598	3369	3208
	0,70	92301	4029	3997
	0,80	108549	4672	4767

Material	Yield point	Breaking point
	[MPa]	[MPa]
Steel S250GD	250	330
Aluminium EN AW-5754 H18	250	290

Capacity table:

STEEL S250GD														
	pitch [m]	0.80	0.90	1.00	1.10	1.20	1.30	1.40	1.50	1.60	1.70	1.80	1.90	2.00
t = 0,6 mm	q lim [kN/m ²]	6.79	5.36	4.34	3.59	3.02	2.57	2.22	1.93	1.70	1.50	1.34	1.20	1.09
t = 0,7 mm	q lim [kN/m ²]	8.45	6.68	5.41	4.47	3.76	3.20	2.76	2.40	2.11	1.87	1.67	1.50	1.35
t = 0,8 mm	q lim [kN/m ²]	9.88	7.81	6.33	5.23	4.39	3.74	3.23	2.81	2.47	2.19	1.95	1.75	1.58

ALUMINIUM EN AW-5754 H18														
	pitch [m]	0.80	0.90	1.00	1.10	1.20	1.30	1.40	1.50	1.60	1.70	1.80	1.90	2.00
t = 0,7 mm	q lim [kN/m ²]	8.10	6.40	5.19	4.29	3.60	3.07	2.65	2.30	2.03	1.79	1.60	1.39	1.19
t = 0,8 mm	q lim [kN/m ²]	9.47	7.48	6.06	5.01	4.21	3.59	3.09	2.69	2.37	2.10	1.86	1.58	1.36

The values shown refer only to the working evenly distributed variable loads, net of the partial coefficients for the actions expected in combining the Limit States.

The underlined values identify the limit load as a result of having reached the maximum design deflection expected (L/250).

