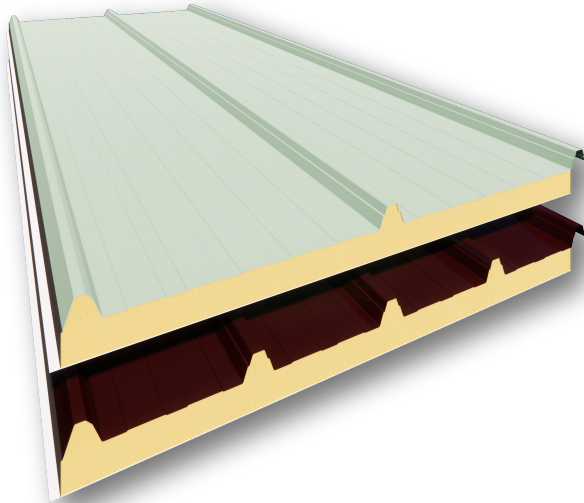


**EASY AGRO 3GR/5GR PANEL**
**ROOF PANEL WITHOUT FLASHING**


**EXTERIOR FACE**  
Pre-painted steel

**INSULATION**  
Polyurethane (PUR)

**INTERIOR FACE**  
Polyester

**THICKNESSES mm (in.)**  
**30/50**  
(1.18/1.97)

**USEFUL WIDTH:**  
1000 mm (39.37 in.)

**USE**  
Sloping roof surfaces  
AGRICULTURAL


**TECHNICAL SPECIFICATIONS**
**MAIN CHARACTERISTICS OF THE 30 mm (1.18 in.) PANEL**

Nominal thickness	30 mm [1.18 in.] (± 3 mm/0.12 in.)
Average foam density	40 kg/m <sup>3</sup> (±10%)
Weight	6.56 kg/m <sup>2</sup> 3GR - 6.91 kg/m <sup>2</sup> 5GR
Volume	30 m <sup>2</sup> /m <sup>3</sup>
Useful width	1000 mm [39.37 in.] (± 3 mm/0.12 in.)
Straightness	0 mm (± 5 mm/0.20 in.)
Contraction - Inflection lengthwise	0 mm (± 5 mm/0.20 in.)
Compressive strength	0.096 MPa
Tensile strength	0.092 MPa
Fire resistance PUR-UNE 13501-1	until B-s2-d0 *
Behavior against fire on the exterior	Broof (t1) for sheet thickness →0.4 mm <i>(*) consult regarding other classifications</i>

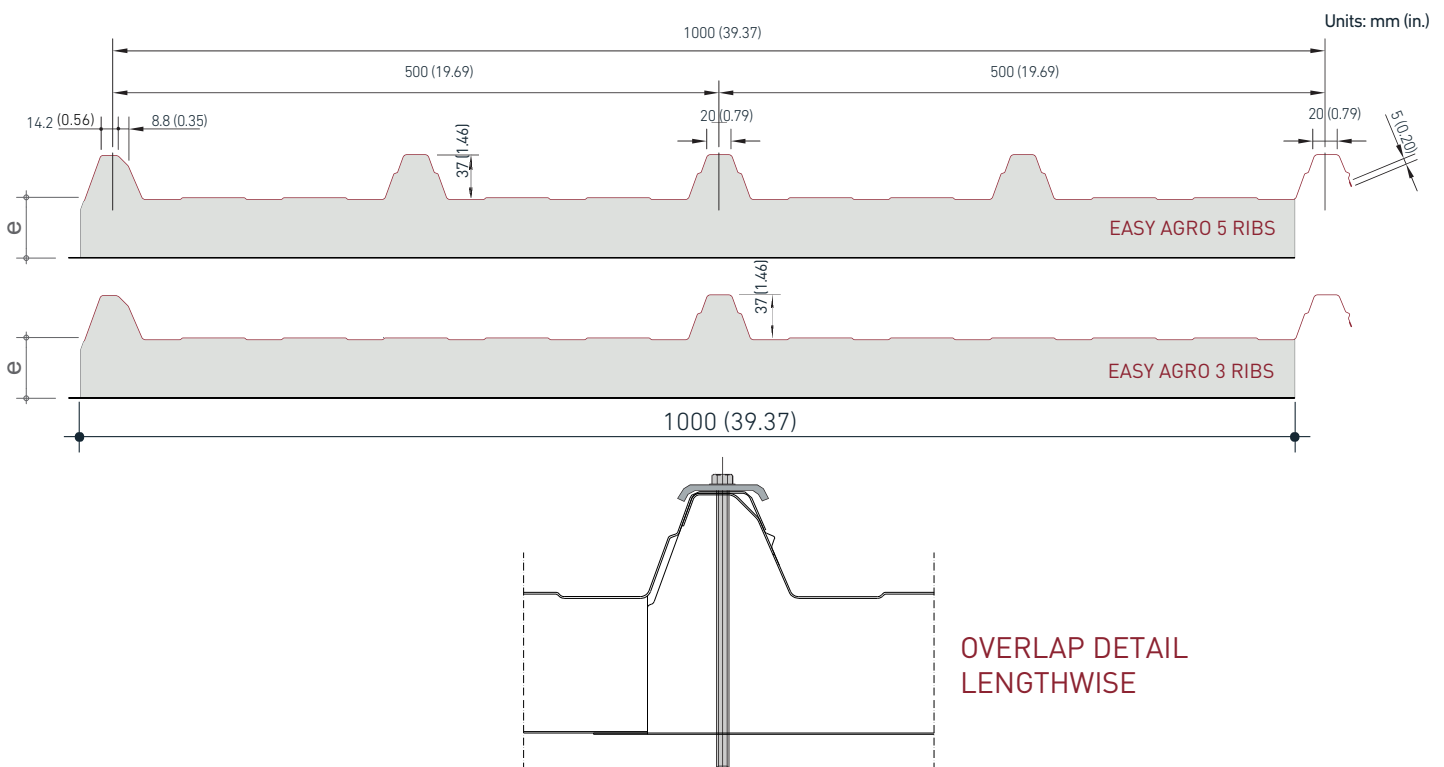
Panel designed for sloping roofs with a minimum incline of 7%.  
A roof panel developed for agricultural facilities.

The interior coating is a plastic laminate made from polyester resin and reinforced with fiberglass. The ribs on its exterior face provide this panel with excellent rigidity, while its foam core provides high levels of thermal insulation. This panel provides livestock facilities with optimum thermal insulation with energy efficiency and low ceiling heights.

**THERMAL INSULATION AND WEIGHT**

RIBBED PANEL	HEAT TRANSFER		WEIGHT (0.5)
	Nominal thickness in mm	K in Kcal/m <sup>2</sup> .h. °C	K in W/m <sup>2</sup> .k
PANEL 3 GR - 30 mm [1.18 in.]	0.58	0.68	6.56
PANEL 3 GR - 50 mm [1.97 in.]	0.36	0.43	7.36
PANEL 5 GR - 30 mm [1.18 in.]	0.58	0.68	6.91
PANEL 5 GR - 50 mm [1.97 in.]	0.36	0.43	7.71

The weight includes the proportional part of the accessory elements.

**GEOMETRIC SPECIFICATIONS**


## STANDARDS APPLIED

Ref. Standard	Description
EN 14509-2014	Metal double-sided insulated self-supporting sandwich panel. Products made at the factory. Specifications.
EN 13823	Reaction to fire tests of construction products. Construction products, excluding floor coverings exposed to thermal attack caused by a single burning object.
EN 10169	Flat steel products, continuous coated with organic materials (pre-painted). Technical supply conditions.
EN 13501	Classification based on the fire performance of construction products and building elements. Part 1.

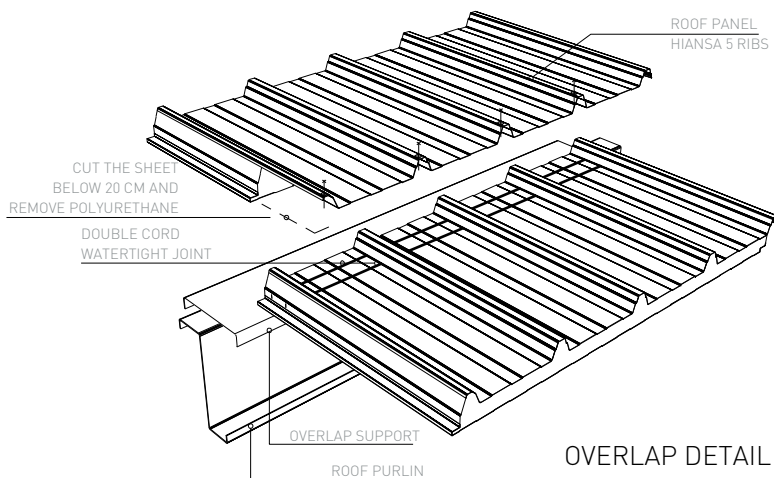
## CONSTRUCTION DETAILS TRANSVERSE OVERLAPPING 3GR/5GR ST

### CONDITIONS OF THE ROOF FOR MAKING THE OVERLAP

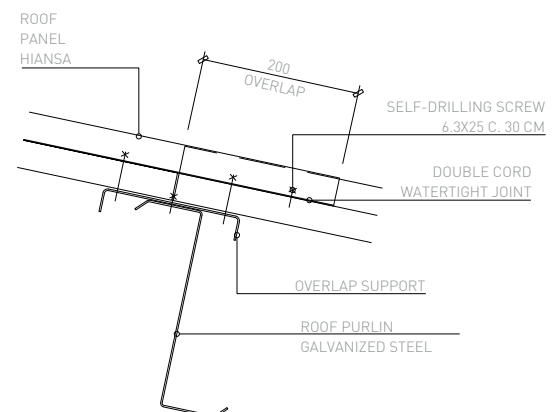
- The roof must have a slope greater than 10%.
- The belt on which the transverse overlapping of panels will be carried out shall have a minimum width of 100 mm.
- The minimum length of the overlap will be 200 mm.

Transverse overlapping between roof panels without flashing (designed for waters of considerable length, where the maximum panel size is insufficient).

The roof insulation panels are created with an efficient overlap system (length 200 mm) from the same manufacturing line on request. The overlap between two consecutive panels thus becomes a safe and simple operation since the product undergoes quality control in the same factory.



OVERLAP DETAIL



OVERLAP SECTION

HIANSA 5 GR ST. PANEL DETAIL VALID FOR ANY TYPE OF HIANSA ROOF PANEL.

## RESISTANCE TABLES

### EASY AGRO 3GR

30/0.3 (kg/m <sup>2</sup> )		
2 Openings		
L	Pressure	Suction
1.0	151	164
1.2	103	116
1.4	74	87
1.6	56	68
1.8	43	55
2.0	-	45
2.2	-	-
2.4	-	-
2.6	-	-
2.8	-	-

30/0.4 (kg/m <sup>2</sup> )		
2 Openings		
L	Pressure	Suction
1.0	203	218
1.2	139	153
1.4	100	114
1.6	75	89
1.8	58	72
2.0	46	59
2.2	-	50
2.4	-	43
2.6	-	-
2.8	-	-

30/0.5 (kg/m <sup>2</sup> )		
2 Openings		
L	Pressure	Suction
1.0	254	270
1.2	174	190
1.4	126	141
1.6	95	110
1.8	73	88
2.0	58	73
2.2	47	62
2.4	-	53
2.6	-	46
2.8	-	41

### EASY AGRO 5GR

30/0.3 (kg/m <sup>2</sup> )		
2 Openings		
L	Pressure	Suction
1.0	290	313
1.2	199	220
1.4	144	164
1.6	109	127
1.8	84	102
2.0	67	84
2.2	54	71
2.4	44	61
2.6	-	53
2.8	-	47
3.0	-	42
3.2	-	-
3.4	-	-
3.6	-	-
3.8	-	-

30/0.4 (kg/m <sup>2</sup> )		
2 Openings		
L	Pressure	Suction
1.0	390	415
1.2	268	291
1.4	195	216
1.6	147	168
1.8	114	134
2.0	91	110
2.2	74	93
2.4	60	79
2.6	50	69
2.8	42	61
3.0	-	54
3.2	-	49
3.4	-	44
3.6	-	-
3.8	-	-

30/0.5 (kg/m <sup>2</sup> )		
2 Openings		
L	Pressure	Suction
1.0	489	516
1.2	337	361
1.4	245	268
1.6	185	207
1.8	144	166
2.0	115	136
2.2	93	114
2.4	77	97
2.6	64	84
2.8	54	74
3.0	46	66
3.2	40	59
3.4	-	53
3.6	-	46
3.8	-	41

Permissible service loads, uniformly distributed in kg/m<sup>2</sup>. The tables have been obtained based on a calculation methodology established in accordance with the provisions of the EAE-2012 standard and the EC-3, considering only the upper steel sheet as a structural element. These results comply with the Ultimate Limit States of normal and tangential stresses prescribed in said standards and with a limitation of the Serviceability Limit State for deformations of L/200.



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