Hiansa Panel

REV. 04 - April 2023

EASY CUB 3GR PANEL



ROOF PANEL WITHOUT FLASHING

INSULATION

EXTERIOR FACE Pre-painted steel

INTERIOR FACE Pre-painted steel

USEFUL WIDTH 1000 mm (39.37 in.)



THICKNESSES mm (in.) 30/40/50/60 (1.18/1.57/1.97/2.36)

USE Sloping roof surfaces



CE

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/m³ (±10%)			
Weight	9.88 kg/m²			
Volume	30 m²/m³			
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 *			
Fire resistance PIR-UNE 13501-1	until B-s1-d0 *			
Behavior against fire on the exterior	Broof (t1) for sheet thickness >0.4 mm			

(*) consult regarding other classifications

Panel designed for sloping roofs with a minimum incline of 7%. Screwing system with visible fastening, which is carried out in the overlap of two adjacent panels by means of a self-drilling screw that is completed with a bridge (or "capelloti") located in the upper part of the rib made of steel with EPDM. The design of this piece guarantees absolute watertightness of the building's roof.

THERMAL INSULATION AND WEIGHT

RIBBED PANEL	HEAT TR	WEIGHT (0.5/0.5)		
Nominal thickness in mm (in.)	K in Kcal∕ m²∙h. °C	K in W/m²⋅k	Kg/m²	
30 (1.18)	0.58	0.68	9.88	
40 (1.57)	0.45	0.53	10.26	
50 (1.97)	0.36	0.43	10.65	
60 (2.36)	0.30	0.36	11.05	

The weight includes the proportional part of the accessory elements.

GEOMETRIC SPECIFICATIONS



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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 OVERLAP 3GR/5GR ST

CONDITIONS OF THE ROOF FOR MAKING THE OVERLAP

- The roof must have a slope greater than 10%.
- The purlin on which the transverse overlap 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 overlap 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.



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

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RESISTANCE TABLES

30/ ECO (kg/m²)							
	2 Openings						
L	Pressure Suction						
0.8	294	304					
1.0	228	238					
1.2	186	196					
1.4	156	166					
1.6	135	144					
1.8	118 121						
2.0	105	102					
2.2	87	88					
2.4	71	77					
2.6	59	67					
2.8	50 60						
3.0	43	53					
3.2	37	48					
3.4	32	43					
3.6	28	39					
	24	36					
4.0	21	33					

40/ ECO (kg/m²)					
	2 Openings				
L	Pressure	Suction			
0.8	321	330			
1.0	249	259			
1.2	203	213			
1.4	170	181			
1.6	147	157			
1.8	129	139			
2.0	115	125			
2.2	103	113			
2.4	86	103			
2.6	72 90				
2.8	61	80			
3.0	52	72			
3.2	45	65			
3.4	39	58			
3.6	34	53			
3.8	30	49			
4.0	27	45			

50/ ECO (kg/m²)							
	2 Openings						
L	Pressure Suction						
0.8	347	358					
1.0	270	280					
1.2	220	230					
1.4	185	195					
1.6	159	169					
1.8	139	149					
2.0	124	134					
2.2	111	121					
2.4	101	111					
2.6	86	103					
2.8	73	95					
3.0	62	89					
3.2	54	83					
3.4	47	75					
3.6	41	68					
3.8	36	63					
4.0	32	57					

	2 Openings			
L	Pressure	Suction		L
0.8	297	310		0.8
1.0	230	244		1.0
1.2	187	200		1.2
1.4	157	170		1.4
1.6	135	148		1.6
1.8	118	131		1.8
2.0	105	118		2.0
2.2 94		107		2.2
2.4	85	98		2.4
2.6	78	86		2.6
2.8	68	77		2.8
3.0	58	69		3.0
3.2	50	62		3.2
3.4	43	56		3.4
3.6	37	51		3.6
3.8	33	47		3.8
4.0	29	44		4.0

40/0.4-0.4 (kg/m²)				
	2 Openings			
L	Pressure	Suction		
0.8	324	337		
1.0	252	265		
1.2	204 218			
1.4	171 185			
1.6	147 160			
1.8	128	142		
2.0	114	128		
2.2	102	116		
2.4	93	106		
2.6	85	98		
2.8	78	91		
3.0	70	85		
3.2	61	80		
3.4	53	76		
3.6	46	69		
3.8	40	63		
4.0	36	58		

50/0.4-0.4 (kg/m²)					
	2 Openings				
L	Pressure	Suction			
0.8	351	365			
1.0	273	286			
1.2	222	235			
1.4	186	199			
1.6	159	173			
1.8	139	153			
2.0	123	137			
2.2	111	124			
2.4	100	114			
2.6	92	105			
2.8	84	98			
3.0	78	91			
3.2	72	86			
3.4	63	81			
3.6	55	77			
3.8	49	73			
4.0	43	70			

Permissible service loads, uniformly distributed in kg/m2. 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.

Hiansa Panel

30/0.5-0.5 (kg/m²)		40/0.5-0.5 (kg/m²)			50/0.5-0.5 (kg/m²)					
	2 Openings		2 Openings			2 Ope	enings		2 Ope	enings
L	Pressure	Suction	L	Pressure	Suction	L	Pressure	Suction		
0.8	299	316	0.8	326	343	0.8	353	370		
1.0	231	248	1.0	253	270	1.0	275	291		
1.2	188	204	1.2	205	222	1.2	223	240		
1.4	157	174	1.4	172	189	1.4	186	203		
1.6	135	151	1.6	147	164	1.6	160	176		
1.8	118	134	1.8	129	145	1.8	139	156		
2.0	105	121	2.0	115	130	2.0	123	140		
2.2	93	110	2.2	101	118	2.2	112	127		
2.4	85	101	2.4	93	109	2.4	102	116		
2.6	78	93	2.6	85	100	2.6	92	108		
2.8	70	87	2.8	78	94	2.8	84	100		
3.0	65	82	3.0	71	88	3.0	77	94		
3.2	60	76	3.2	65	82	3.2	72	88		
3.4	54	69	3.4	61	78	3.4	66	83		
3.6	47	63	3.6	57	74	3.6	62	79		
3.8	41	58	3.8	51	70	3.8	58	75		
4.0	36	54	4.0	45	67	4.0	55	71		

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