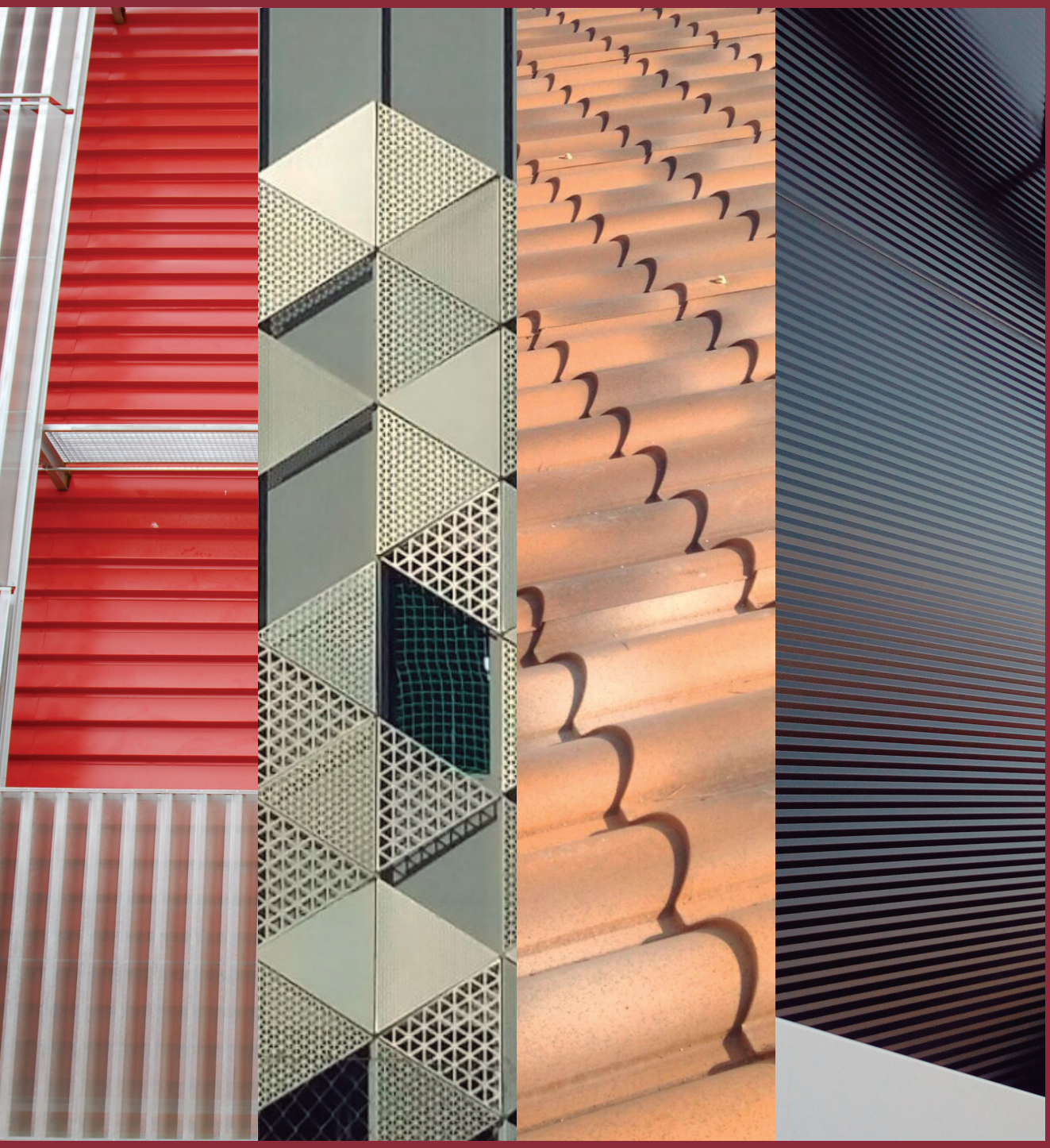
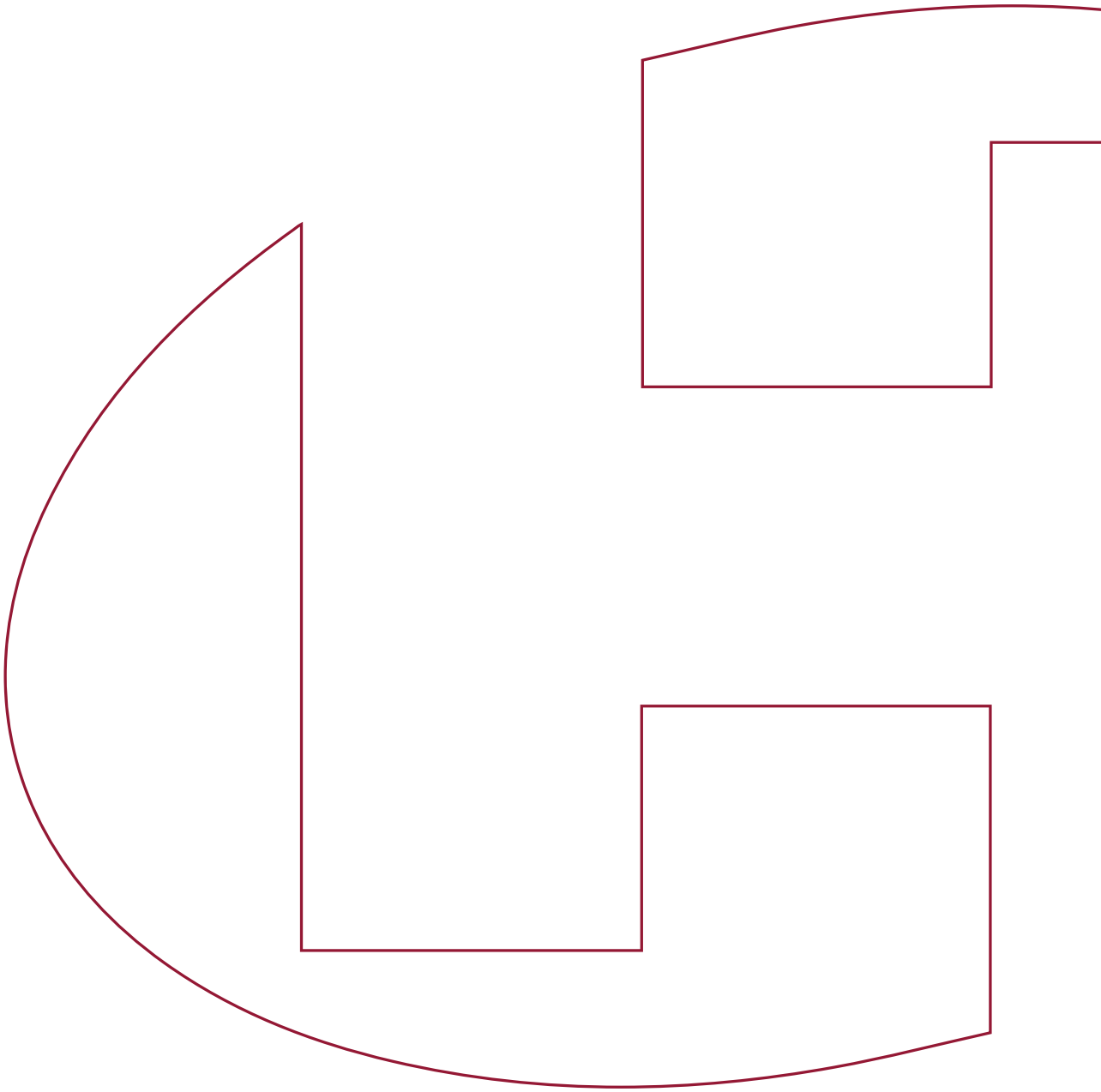
GENERAL PRODUCT CATALOGUE



Hiansa
Grupo Hiemesa



GENERAL PRODUCT CATALOGUE

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Hiansa
Grupo Hiemesa

CONTENTS

PRESENTATION OF ROOF PANELS
- PANEL CUB 2GR/3GR 10
- PANEL AGRO 3GR 11
- EASY CUB 3GR 12
- EASY CUB 5GR 13
- EASY AGRO 3GR/5GR 14
- EASY ALU 3GR/5GR 15
- EASY BOARD 3GR/5GR 16
- TEJA ROOF PANEL 18

FACADE PANELS
- FACADE PANEL MPF/PRF/SML/LIS 24
- MODULAR FACADE PANEL 900-1000 25
- MURO 26

REFRIGERATION PANEL
- FRIGO 29

ROCK WOOL PANEL
- ROOF PANEL HiRock 32
- FACADE PANEL HiRock 33
- SECTORIZATION PANEL HiRock 34

HIGH PERFORMANCE PANEL
- ULTRA PANELS 36

LIGHTING PANELS
- HONEYCOMB POLYCARBONATE 41
- HIANSAPLUS 42
- POLIMER 43
- POLICLADD 44
- COMPACT POLYCARBONATE 45

PROFILED SHEETS
- MO-18 MINIONDA 50
- MT-44 IBIZA 51
- MT-32F 52
- MT-32 53
- MT-42 54
- MT-52 55
- MT-30 MENORCA 56
- MT-35 FORMENTERA 57
- MT-53 MALLORCA 58
- MT-60 SE 60
- MT-76 SE 62
- MT-100 SE 64
- MT-56 DECK 66
- MT-68 DECK 67
- 90.380 TRAY 68
- 130.600 TRAY 70

COMPOSITE SLABS
- MT-60 SLAB 80
- MT-76 SLAB 82
- MT-100 SLAB 84

CE

ISO 9001
BUREAU VERITAS
Certification


Hiansa


GH
5t

HIANSA PRESENTATION

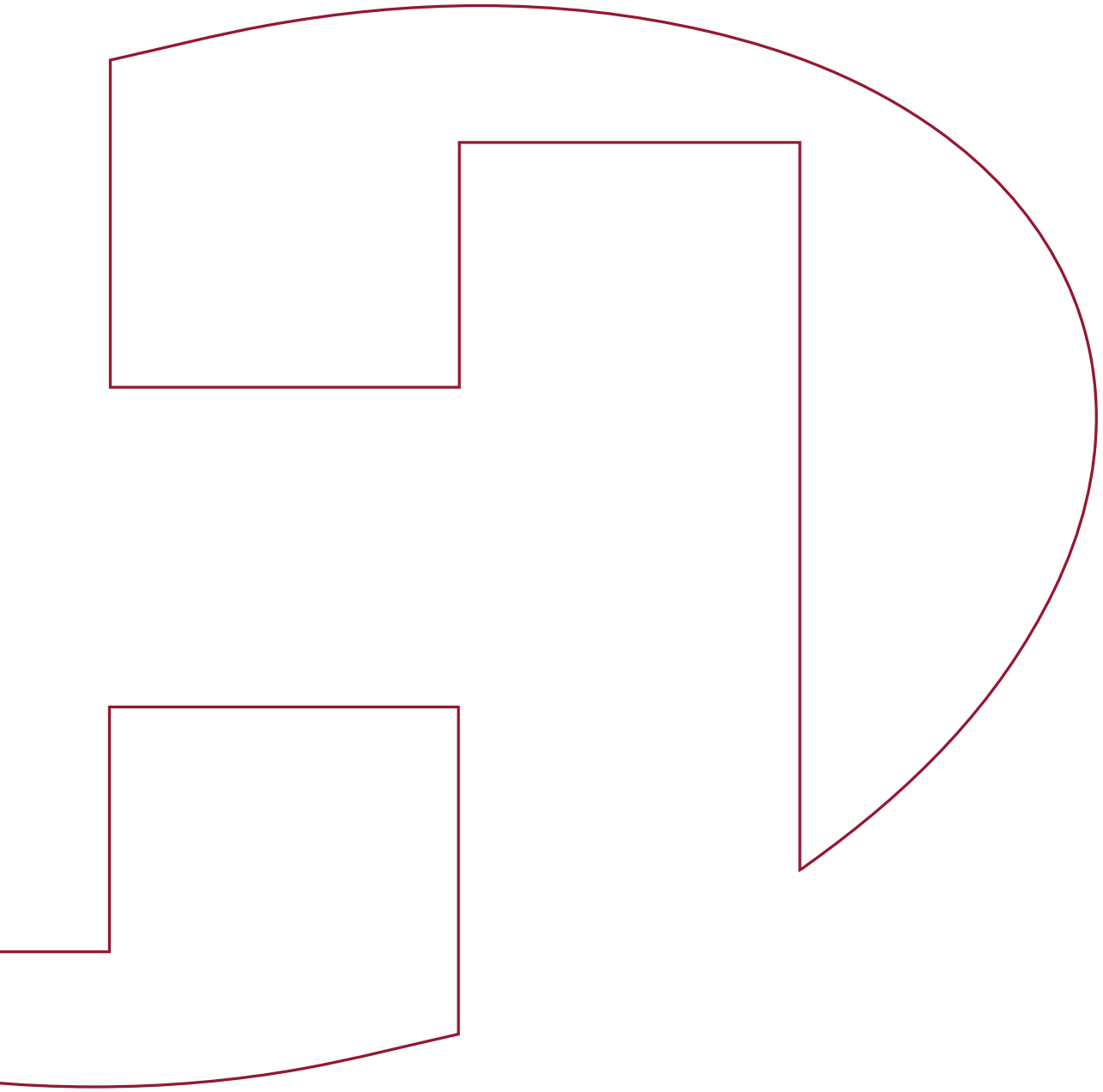
Hiansa is a leading manufacturer of pre-painted steel panels for roofs and facades, which are essential in industrial construction processes.

The advantages of pre-painted shaped steel are its light weight, mechanical strength, ease of transportation and handling, the speed with which it can be assembled and the great aesthetic possibilities it presents, which in the case of Hiansa include a variety of finishes and coatings: galvanised, pre-painted (wide range of colours), zinc aluminium, etc.

Innovative-minded designers will find the wide range of products they need, along with responses to technical, functional and aesthetic demands in terms of facade and roof cladding materials for modern architecture.

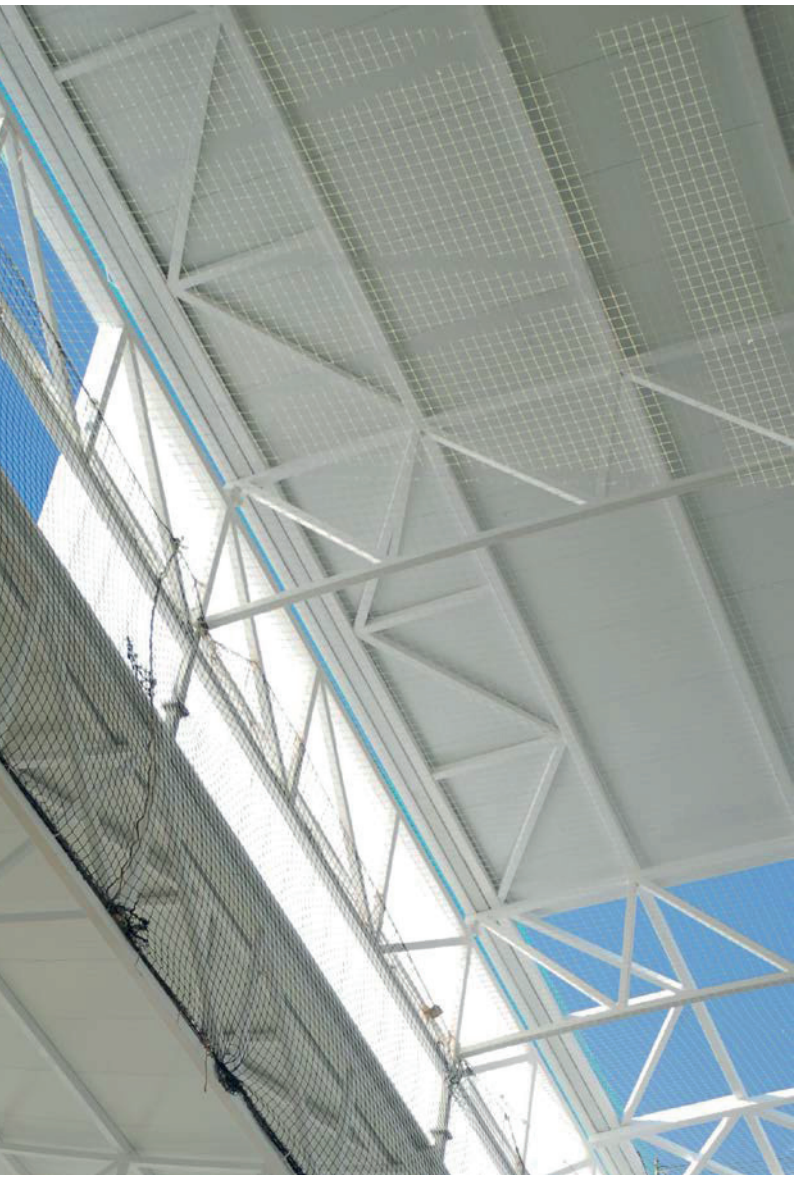
Meanwhile, with the unstoppable technical progress of light metal closures, Hiansa has developed a comprehensive range of profiles guaranteeing the majority of design solutions.

All the products are recognised for their competitive quality. This range does not just include profiles, it also includes a wide variety of finishes and special parts to complete any project: curved profiles, perforated profiles, sandwich panels with rigid polyurethane and polyisocyanurate foam insulating cores, refrigeration panels, self-supporting trays, and complementary natural lighting (integrating translucent modules), ventilation and insulation systems, composite slab sheeting, deck roofs, finishes, etc.



ROOF PANELS

ROOF PANELS



COMPOSITION

- **EXTERIOR**

MATERIAL
Pre-painted steel

THICKNESS (mm)
from 30 to 100 mm

- **ISOLAMENTO**

MATERIAL
Polyurethane (PUR)
Polyisocyanurate (PIR)

USES
Pitched roofs and decks, for industrial and agricultural uses

PROPERTIES
With and without flashing. Thermal and acoustic insulation

DENSITY
40 kg/m^3 (±2 kg)

- **INTERIOR**

MATERIAL
Pre-painted steel, centesimal aluminium, bituminous cardboard

USEFUL WIDTH
1000 mm

DESCRIPTION OF THE PANELS

HIANSA has created a complete range of roof panels for civil and industrial construction projects; they are lightweight, making them easy to handle and meaning that they can be placed on lightweight structures. They are comprised of an exterior side of corrugated steel, a rigid polyurethane (PUR) or polyisocyanurate (PIR) foam insulating core and an interior corrugated face with various finish options depending on each project (steel, polyester, aluminium, cardboard, etc.).

The core insulation for these panels is a very versatile material, commonly used due to the optimum thermal insulation it provides, along with its light weight, ease of handling and installation, stability and good reaction to fire.

Any requirement can be met in a constructive manner thanks to the multitude of options available such as 2 and 3 ribbed panel with flashing and 3 and 5 ribbed panel without flashing.

The roof solution with a hidden bolt-on system (flashing) guarantees water tightness, while providing a modern, functional design. It consists of a 2 mm thick steel clip which anchors the panels, ensuring that it stays in place. The solution is completed with a steel profile (flashing), available in the same colour and finish as the panels.

The roof solution without flashing is quick and easy to install, as it does not need a joining profile (flashing), using a visible bolt-on securing system. Designed with 3 and 5 rib options, these panels have the mechanical properties to adapt to the different requirements of a project.

INSULATION

RIBBED PANEL	HEAT TRANSFER COEFFICIENT		WEIGHT
Nominal thickness in mm	K in Kcal/ m^2·h. °C	K in W/m^2·k	kg/m^2
30	0.58	0.68	10.60
40	0.45	0.53	11.00
50	0.36	0.43	11.40
60	0.30	0.36	11.80
70	0.26	0.31	12.20
80	0.23	0.27	12.60
100	0.18	0.21	13.40

ACOUSTIC INSULATION						
Frequency Hz	125	250	500	1000	2000	4000
Acoustic insulation db	28	22	23	26	35	44

TECHNICAL CHARACTERISTICS

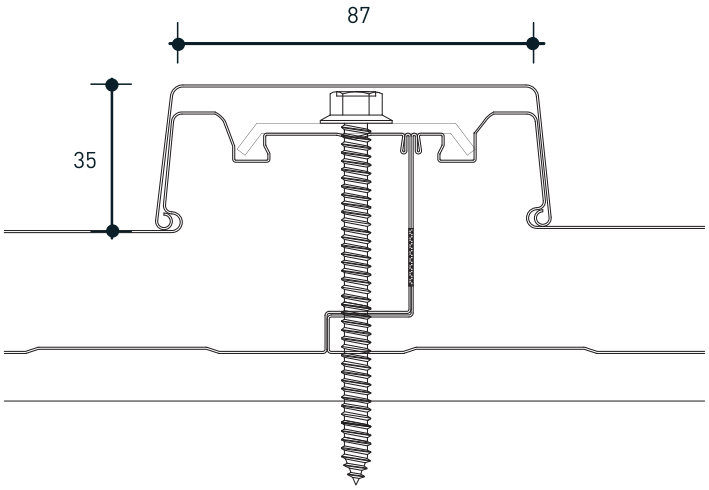
MAIN CHARACTERISTICS	
Nominal thickness	30 mm
Panel thickness	1000 mm
Weight	10.60 kg/m^2
Volume	30 m^2/m^3

PANEL WITH FLASHING 2GR/3GR

Using an insulated, self-supporting, sealed panel is not enough to guarantee absolute water-tightness of the roof without using suitable flashing and fastening systems.

The Hiansa Panel, S.A. fastening system is comprised of a 2 mm thick steel board, which ensures that the panels stay in place and can be anchored to the purlin, and a high quality bolt which secures the tongue-and-groove panels to the roof structure.

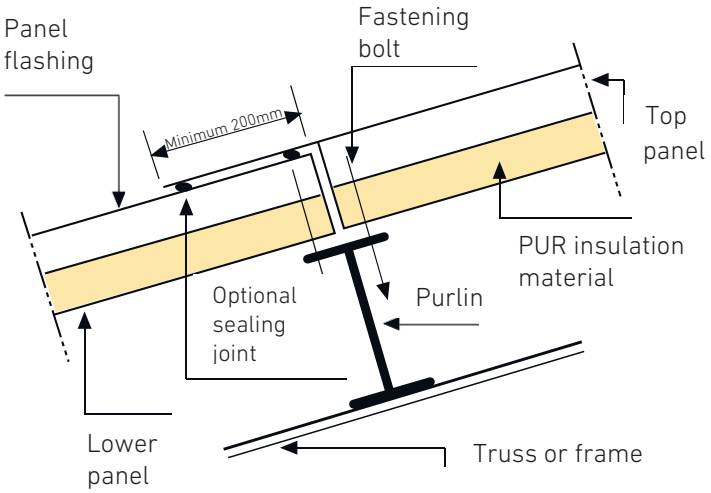
The solution is completed with a steel profile (flashing), available in the same colour and finish as the panels. This piece is designed to fit into the space left between the panel grooves, making installation easier while guaranteeing that the building roof is insulated and completely water-tight.



TRANSVERSE OVERLAP 2GR/3GR

A transverse overlap between roof panels with flashing (designed for roofs with considerably long edges, where the maximum panel size is insufficient).

Insulating roof panels are created using an efficient overlap system (200 mm in length), available in the same manufacturing line upon request. The overlap between two consecutive panels is therefore a safe and simple operation, because the product is subjected to quality control in the same factory.



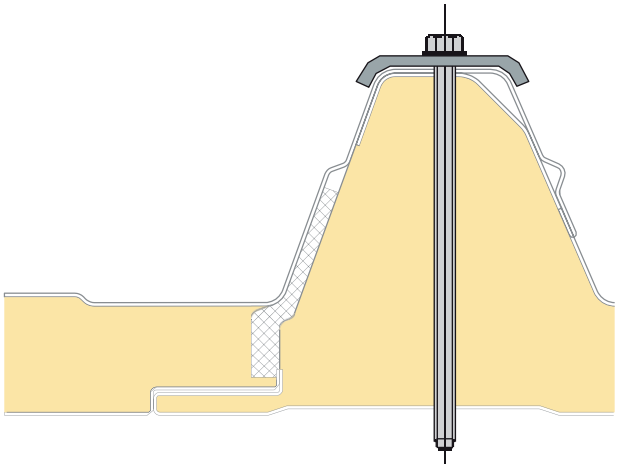
ROOF CONDITIONS WHEN INSTALLING AN OVERLAP

- The roof pitch must be greater than 10%.
- The purlin on which the transverse overlap is to go much be at least 100 mm wide.
- The minimum overlap length is 200 mm.
- There must be a minimum gap of 50 cm between the panel overlap and the flashing overlap.

EASY PANEL WITHOUT FLASHING

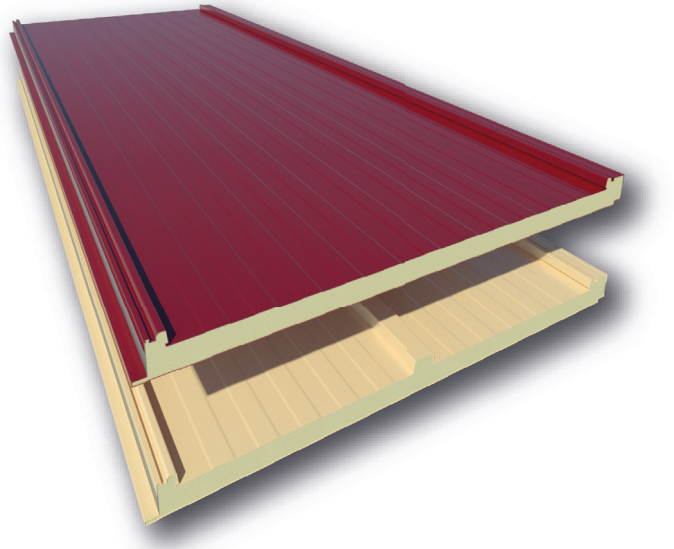
The products in the Easy Panel range are easy to install and offer a very competitive price/quality relationship.

The Easy Panel fastening system is composed of a grooved EDPM washer and self-tapping screw, which ensures the assembly is completely water tight.



PANEL CUB 2GR/3GR

ROOF PANEL WITH FLASHING



EXTERIOR FACE
Pre-painted steel

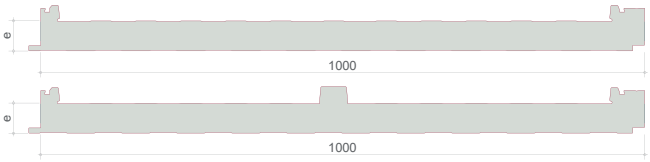
INTERIOR FACE
Pre-painted steel, centesimal aluminium, bitumen. cardboard

INSULATION
Polyurethane (PUR) and Polyisocyanurate (PIR)

THICKNESS (mm)
30/40/50/60/80/100

USEFUL WIDTH 1000 mm

USE
Sloping roof surfaces

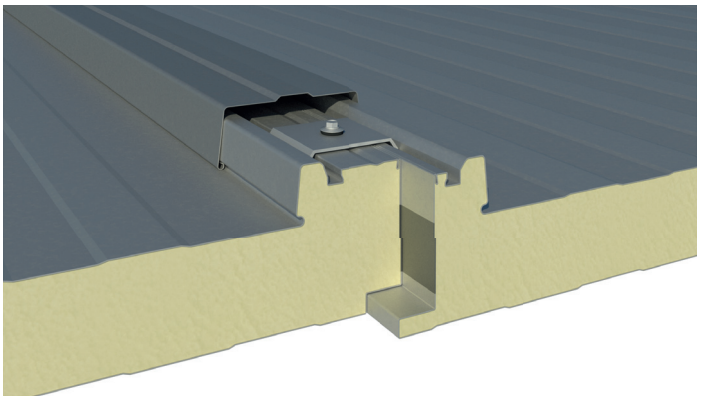


CHARACTERISTICS

This panel has been designed for pitched roofs with a minimum pitch of 7%. Its hidden bolt-on system (flashing) guarantees water tightness while giving it a modern, functional appearance. Its profile perfectly combines high tensile strength and a smooth finish with few ribs.

WEIGHT in kg/m²		THICKNESS		
Profiles	Plate	30	40	50
2 GR	0.5 / 0.5	10.60	11.00	11.40
3 GR	0.5 / 0.5	10.80	11.20	11.60

This value includes the proportional part of accessory items.



Panel Union Detail with Flashing

MAXIMUM VALUES OF PRESSURE AND SUCTION LOADS (kp/m²)

PANEL CUB 2GR

Differential Temperature		0°C		20°C	
Insulation thickness (d)		30 mm	40 mm	30 mm	40 mm
1 Opening	1.5	281/284	280/284	281/284	280/284
	2.0	208/211	207/210	196/211	207/210
	2.5	157/157	163/166	140/163	163/166
	3.0	116/116	134/137	103/126	134/137
	3.5	88/88	113/116	78/91	113/116
	4.0	68/68	97/97	60/69	95/97
	4.5	53/53	76/76	46/53	76/76
2 Openings	1.5	235/235	266/266	205/211	233/238
	2.0	147/147	170/170	125/140	145/160
	2.5	99/99	117/117	83/105	98/121
	3.0	71/71	85/85	58/84	70/97
	3.5	52/52	63/63	42/71	51/82
	4.0	31/31	48/48	22/51	38/67
	4.5	16/16	33/33	8/32	23/52

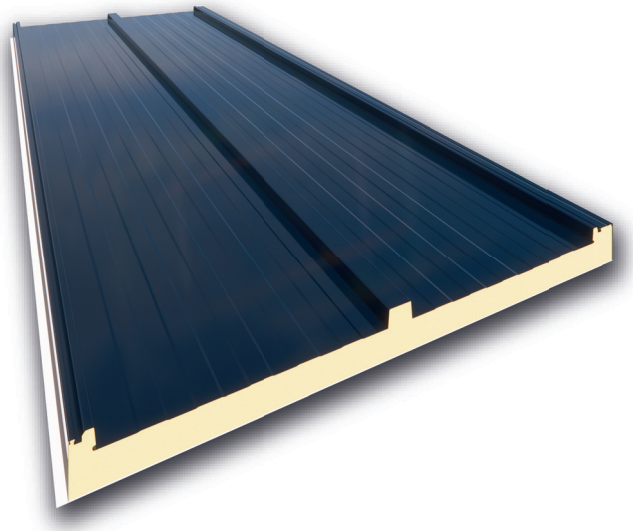
PANEL CUB 3GR

Differential Temperature		0°C		20°C	
Insulation thickness (d)		30 mm	40 mm	30 mm	40 mm
1 Opening	1.5	281/284	280/284	281/284	280/284
	2.0	207/211	207/210	207/211	207/210
	2.5	163/167	163/166	163/167	163/166
	3.0	134/137	133/137	134/137	133/137
	3.5	111/111	112/116	105/111	112/116
	4.0	83/83	97/100	81/83	97/100
	4.5	63/63	85/86	63/63	85/83
2 Openings	1.5	281/284	280/284	281/278	280/275
	2.0	207/211	207/210	207/211	207/207
	2.5	163/167	163/166	151/167	163/166
	3.0	123/123	133/137	108/130	127/137
	3.5	80/80	110/110	67/106	96/116
	4.0	50/50	75/75	39/71	62/100
	4.5	30/30	49/49	21/47	38/70

Allowable service overloads, evenly distributed in kg/m². The tables have been obtained based on experimental results determined in a laboratory and based on the established calculation methodology in accordance with UNE-EN 14509. These results comply with the Ultimate Limit States prescribed in the legislation and with a deformation Service Limit State limited to L/200.

PANEL AGRO 3GR

ROOF PANEL WITH FLASHING FOR AGRICULTURAL USE



EXTERIOR FACE
Pre-painted steel

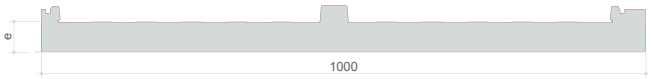
INSULATION
Polyurethane (PUR)

INTERIOR FACE
Polyester

THICKNESS (mm)
30/40/50

USEFUL WIDTH 1000 mm

USE
Sloping roof surfaces



CHARACTERISTICS

A sandwich panel for pitched roofs, with a polyester sheet placed on its interior face. This panel has been specially developed for agricultural facilities. Its use is recommended in areas with high levels of corrosion and aggressive environments. Its interior coating is made from polyester resins with fibre glass reinforcement.

WEIGHT in kg/m²		THICKNESS		
Profiles	Plate	30	40	50
3 GR	0.5	5.90	6.30	6.70

WORKING LOADS FOR AGRO PANELS

PANEL AGRO 3GR

30/0.4(kg/m²)				
	1		2	
L	Pressure	Suction	Pressure	Suction
1.0	201	224	212	212
1.2	138	138	146	149
1.4	87	87	106	111
1.6	56	56	79	86
1.8	-	-	62	69
2.0	-	-	49	57
2.2	-	-	39	48
2.4	-	-	-	42

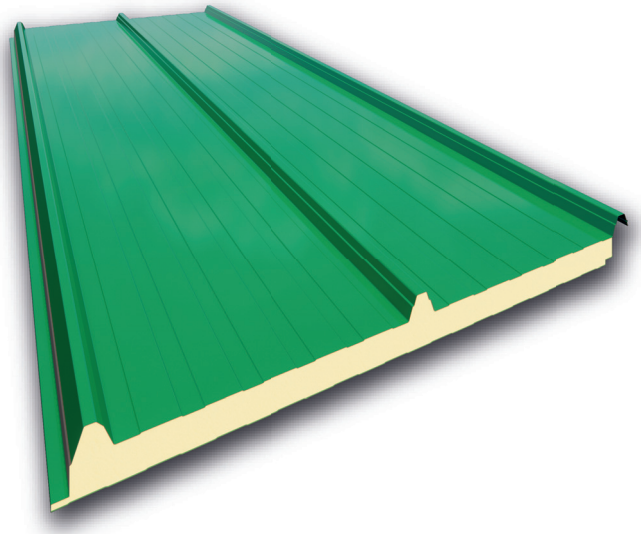
30/0.5(kg/m²)				
	1		2	
L	Pressure	Suction	Pressure	Suction
1.0	263	278	265	276
1.2	181	195	182	194
1.4	113	125	132	144
1.6	73	86	100	112
1.8	49	63	77	90
2.0	-	48	61	74
2.2	-	-	50	62
2.4	-	-	41	53
2.6	-	-	-	46
2.8	-	-	-	41

30/0.6(kg/m²)				
	1		2	
L	Pressure	Suction	Pressure	Suction
1.0	293	308	295	306
1.2	206	220	207	219
1.4	133	145	152	164
1.6	88	101	115	127
1.8	59	73	87	99
2.0	-	53	66	79
2.2	-	-	54	66
2.4	-	-	44	56
2.6	-	-	-	51
2.8	-	-	-	45

Allowable service overloads, evenly distributed in kg/m². The tables have been obtained based on experimental results determined in a laboratory and based on the established calculation methodology in accordance with UNE-EN 14509. These results comply with the Ultimate Limit States prescribed in the legislation and with a deformation Service Limit State limited to L/200.

EASY CUB 3GR

ROOF PANEL WITHOUT FLASHING



EXTERIOR FACE
Pre-painted steel

INTERIOR FACE
Pre-painted steel

USEFUL WIDTH 1000 mm

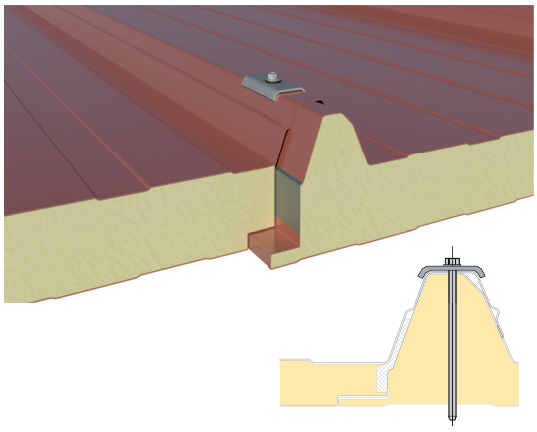
INSULATION
Polyurethane (PUR) and Polyisocyanurate (PIR)

THICKNESS (mm)
30/40/50/60

USE
Sloping roof surfaces

CHARACTERISTICS

A double corrugated sheet panel with 3 ribs, which allows the mechanical strength to be increased, with PUR and PIR foam insulating core and visible bolt-on system. It is secured where the ribs of two adjoining panels overlap by using a piece of steel with an EDPM seal; the water tightness of the joint is guaranteed by using self-tapping screws.



WEIGHT in kg/m²		THICKNESS			
Profiles	Plate	30	40	50	60
3 GR	0.5 / 0.5	9.88	10.26	10.65	11.05

EASY CUB 3GR

WORKING LOADS FOR SANDWICH TYPE SELF-SUPPORTING PANELS

30/0.5-0.5(kg/m²)		
	2 Openings	
L	Pressure	Suction
0.8	299	316
1.0	231	248
1.2	188	204
1.4	157	174
1.6	135	151
1.8	118	134
2.0	105	121
2.2	93	110
2.4	85	101
2.6	78	93
2.8	70	87
3.0	65	82
3.2	60	76
3.4	54	69
3.6	47	63
3.8	41	58
4.0	36	54

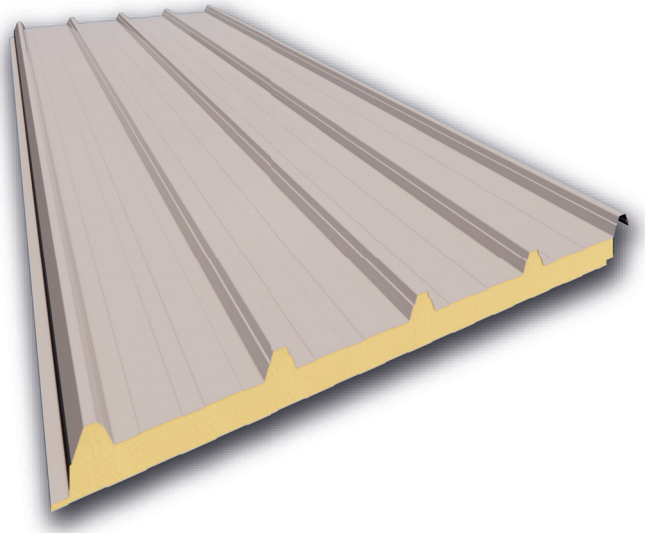
40/0.5-0.5(kg/m²)		
	2 Openings	
L	Pressure	Suction
0.8	326	343
1.0	253	270
1.2	205	222
1.4	172	189
1.6	147	164
1.8	129	145
2.0	115	130
2.2	101	118
2.4	93	109
2.6	85	100
2.8	78	94
3.0	71	88
3.2	65	82
3.4	61	78
3.6	57	74
3.8	51	70
4.0	45	67

50/0.5-0.5(kg/m²)		
	2 Openings	
L	Pressure	Suction
0.8	353	370
1.0	275	291
1.2	223	240
1.4	186	203
1.6	160	176
1.8	139	156
2.0	123	140
2.2	112	127
2.4	102	116
2.6	92	108
2.8	84	100
3.0	77	94
3.2	72	88
3.4	66	83
3.6	62	79
3.8	58	75
4.0	55	71

Allowable service overloads, evenly distributed in kg/m². The tables have been obtained based on the calculation methodology established according to standard EAE-2012 and EC-3, considering only the upper steel panel as a structural element. These results comply with the Ultimate Limit States for normal and shear stresses prescribed in the legislation and with a deformation Service Limit State limited to L/200.

EASY CUB 5GR

ROOF PANEL WITHOUT FLASHING



EXTERIOR FACE
Pre-painted steel

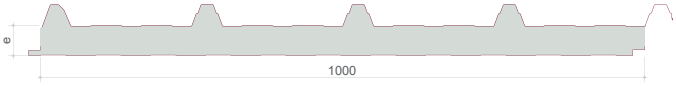
INTERIOR FACE
Pre-painted steel

INSULATION
Polyurethane (PUR) and Polyisocyanurate (PIR)

THICKNESS (mm)
30/40/50/60

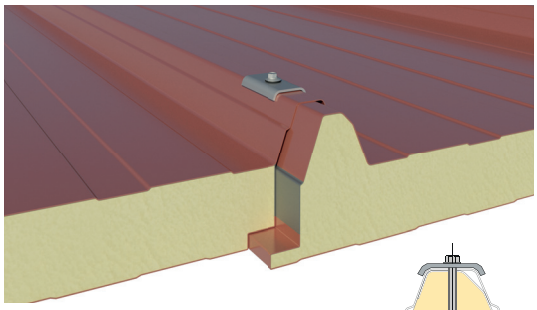
USEFUL WIDTH 1000 mm

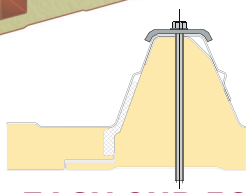
USE
Sloping roof surfaces



CHARACTERISTICS

A double corrugated sheet panel with 5 ribs, which allows the mechanical strength to be increased, with PUR and PIR foam insulating core and visible bolt-on system. It is secured where the ribs of two adjoining panels overlap by using a piece of steel with an EDPM seal; the water tightness of the joint is guaranteed by using self-tapping screws.





EASY CUB 5GR

WEIGHT in kg/m²		THICKNESS			
Profiles	Plate	30	40	50	60
5 GR	0.5 / 0.5	10.24	10.62	11.01	11.42

WORKING LOADS FOR SANDWICH TYPE SELF-SUPPORTING PANELS

30/0.5-0.5(kg/m²)		
	2 Openings	
L	Pressure	Suction
0.8	308	328
1.0	238	259
1.2	193	213
1.4	161	181
1.6	138	158
1.8	120	140
2.0	106	126
2.2	94	115
2.4	85	105
2.6	77	98
2.8	71	91
3.0	65	85
3.2	60	81
3.4	57	76
3.6	52	72
3.8	49	69
4.0	46	66

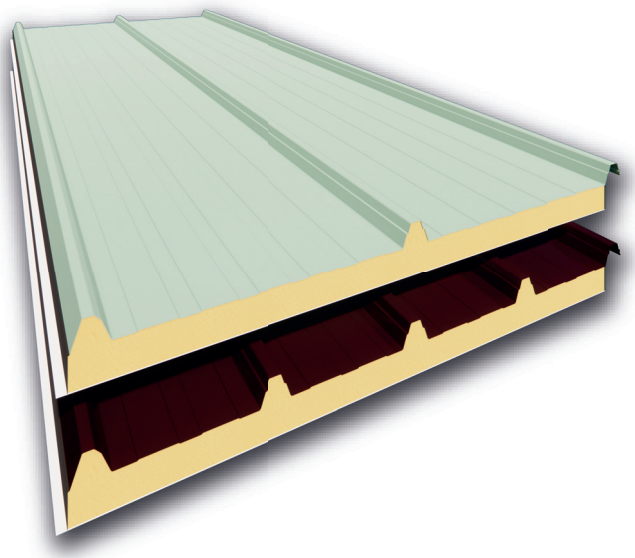
40/0.5-0.5(kg/m²)		
	2 Openings	
L	Pressure	Suction
0.8	335	355
1.0	260	280
1.2	210	231
1.4	176	196
1.6	150	170
1.8	131	151
2.0	115	136
2.2	103	123
2.4	93	113
2.6	85	105
2.8	77	98
3.0	73	91
3.2	68	86
3.4	61	81
3.6	59	77
3.8	53	74
4.0	50	70

50/0.5-0.5(kg/m²)		
	2 Openings	
L	Pressure	Suction
0.8	362	382
1.0	281	301
1.2	228	248
1.4	190	211
1.6	163	183
1.8	142	162
2.0	126	145
2.2	113	132
2.4	101	121
2.6	94	112
2.8	87	104
3.0	78	97
3.2	72	92
3.4	67	87
3.6	63	82
3.8	59	78
4.0	55	75

Allowable service overloads, evenly distributed in kg/m². The tables have been obtained based on the calculation methodology established according to standard EAE-2012 and EC-3, considering only the upper steel panel as a structural element. These results comply with the Ultimate Limit States for normal and shear stresses prescribed in the legislation and with a deformation Service Limit State limited to L/200.

EASY AGRO 3GR/5GR

ROOF PANEL WITHOUT FLASHING FOR AGRICULTURAL USE



EXTERIOR FACE
Pre-painted steel

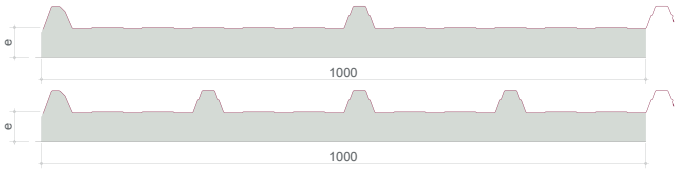
INTERIOR FACE
Polyester

INSULATION
Polyurethane (PUR) and Polyisocyanurate (PIR)

THICKNESS (mm)
30/50

USEFUL WIDTH 1000 mm

USE
Sloping roof surfaces



CHARACTERISTICS

Panel designed for agricultural facilities. Its interior coating is a plastic sheet made from polyester resins with fibre glass reinforcement. The ribs on the exterior face provide the panel with a high degree of rigidity, while the foam provides excellent heat insulation.

This panel provides livestock facilities with optimum, energy efficient, thermal insulation and low ceilings.

WEIGHT in kg/m²		THICKNESS	
Profiles	Plate	30	50
3 GR	0.5	6.56	7.36
5 GR	0.5	6.91	7.71

EASY AGRO 3GR

WORKING LOADS (kg/m²)

30/0.5(kg/m²)		
	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

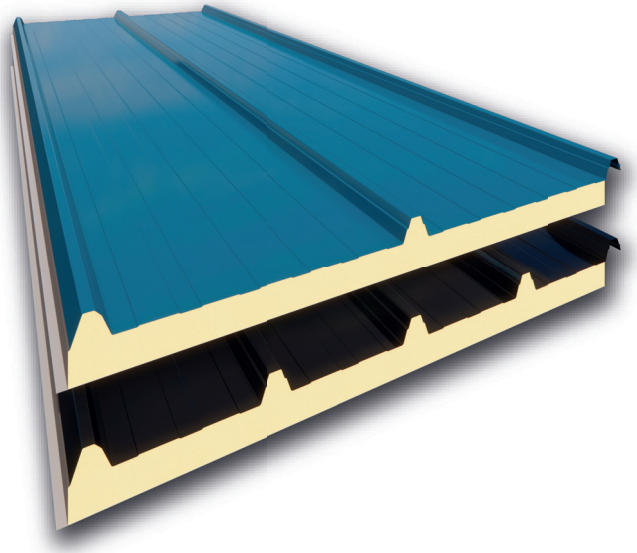
EASY AGRO 5GR

30/0.5(kg/m²)		
	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

Allowable service overloads, evenly distributed in kg/m². The tables have been obtained based on the calculation methodology established according to standard EAE-2012 and EC-3, considering only the upper steel panel as a structural element. These results comply with the Ultimate Limit States for normal and shear stresses prescribed in the legislation and with a deformation Service Limit State limited to L/200.

EASY ALU 3GR/5GR

ROOF PANEL WITHOUT FLASHING



EXTERIOR FACE
Pre-painted steel

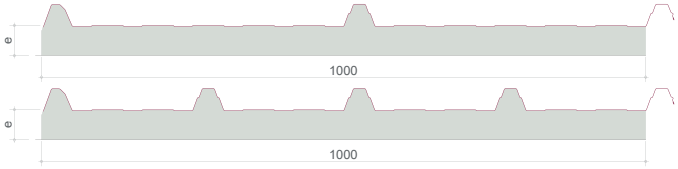
INTERIOR FACE
Centesimal aluminium

INSULATION
Polyurethane (PUR) and Polyisocyanurate (PIR)

THICKNESS (mm)
30

USEFUL WIDTH 1000 mm

USE
Sloping roof surfaces



CHARACTERISTICS

Self-supporting metal panel, with an insulating polyurethane (PUR) core, composed of an exterior sheet of steel and an interior sheet of centesimal aluminium. Used for pitched roofs with a minimum pitch of 7%.

WEIGHT in kg/m²		THICKNESS
Profiles	Plate	30
3 GR	0.5	6.56
5 GR	0.5	6.91

WORKING LOADS (kg/m²)

EASY ALU 3GR

30/0.5(kg/m²)		
	2	
L	Pressur	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

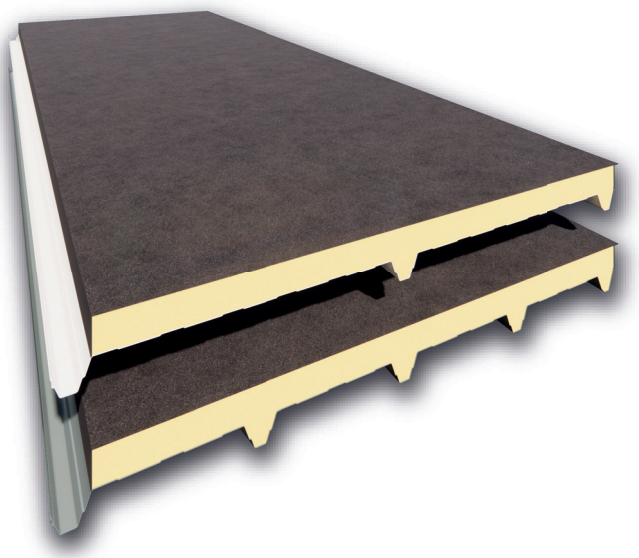
EASY ALU 5GR

30/0.5(kg/m²)		
	2	
L	Pressur	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

Allowable service overloads, evenly distributed in kg/m². The tables have been obtained based on the calculation methodology established according to standard EAE-2012 and EC-3, considering only the upper steel panel as a structural element. These results comply with the Ultimate Limit States for normal and shear stresses prescribed in the legislation and with a deformation Service Limit State limited to L/200.

EASY BOARD 3GR/5GR

ROOF PANEL WITHOUT FLASHING



EXTERIOR FACE
Pre-painted steel

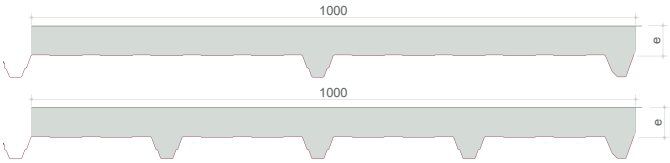
INTERIOR FACE
Bituminous cardboard

INSULATION
Polyurethane (PUR) and Polyisocyanurate (PIR)

THICKNESS (mm)
30

USE
Sloping roof surfaces and decks

USEFUL WIDTH 1000 mm



CHARACTERISTICS

Self-supporting metal panel, with an insulating polyurethane (PUR) core, composed of an exterior sheet of steel and a felt cardboard lining on its interior face. The ribs on the exterior face provide the panel with a high degree of rigidity, while the foam provides excellent heat insulation.

WITHOUT FLASHING		THICKNESS
Profiles	Plate	30
3 GR	0.5	6.56
5 GR	0.5	6.91

EASY BOARD 3GR

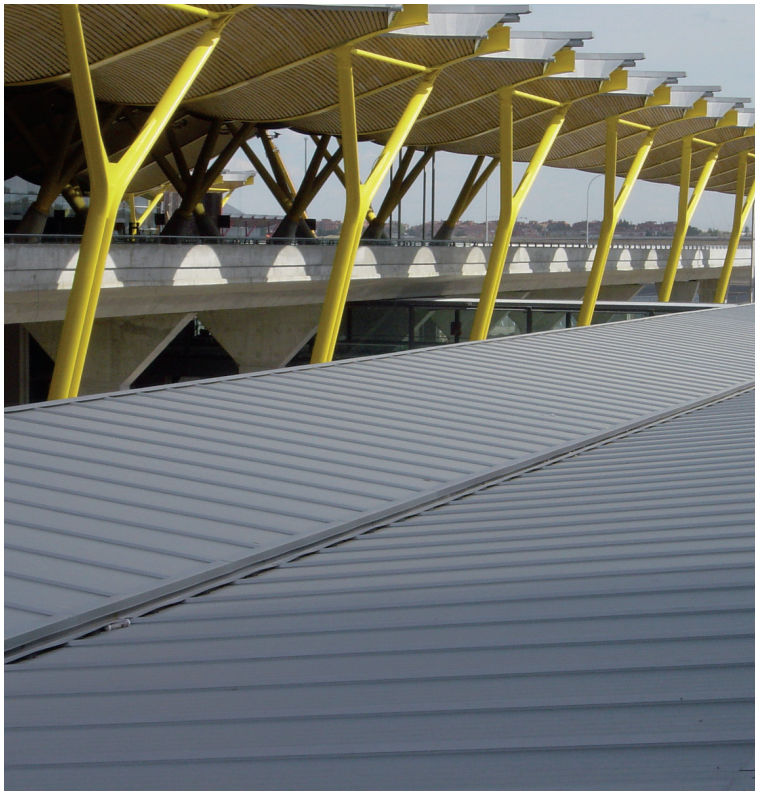
WORKING LOADS (kg/m²)

30/0.5(kg/m²)		
	2	
L	Pressur	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 BOARD 5GR

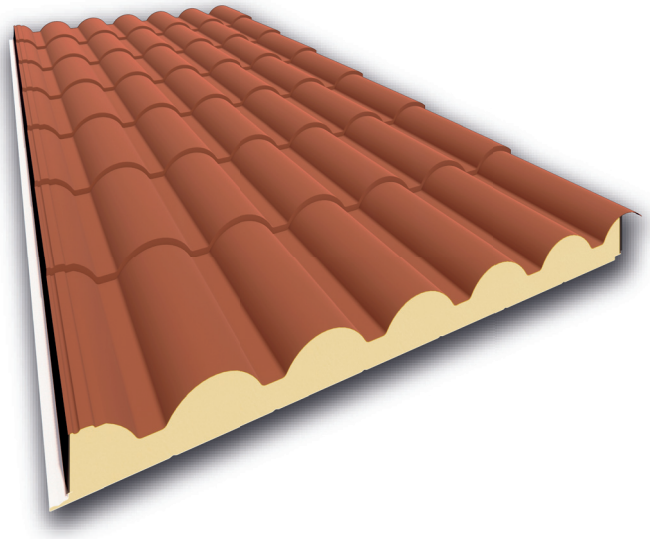
30/0.5(kg/m²)		
	2	
L	Pressur	Suction
1.0	489	516
1.2	337	361
1.4	245	268
1.6	185	207
1.8	144	166
2.0	115	136
2.2	93	114
2.4	77	97
2.6	64	84
2.8	54	74
3.0	46	66
3.2	40	59
3.4	-	53
3.6	-	46
3.8	-	41

Allowable service overloads, evenly distributed in kg/m². The tables have been obtained based on the calculation methodology established according to standard EAE-2012 and EC-3, considering only the upper steel panel as a structural element. These results comply with the Ultimate Limit States for normal and shear stresses prescribed in the legislation and with a deformation Service Limit State limited to L/200.



TEJA ROOF

ROOF PANEL



EXTERIOR FACE
Pre-painted steel

INTERIOR FACE
Pre-painted steel

EXTERIOR COLOUR FINISH
Aged Albero
Red teja
Slate

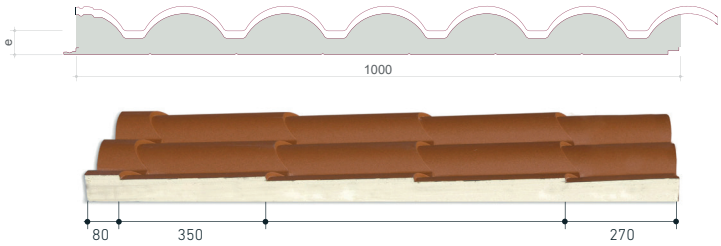
USEFUL WIDTH 1000 mm

INTERIOR COLOUR FINISH
Standard colours Wood finish

INSULATION
Polyurethane (PUR) an
Polyisocyanurate (PIR)

THICKNESS (mm)
20/30/40

USE
Pitched roofs



CHARACTERISTICS

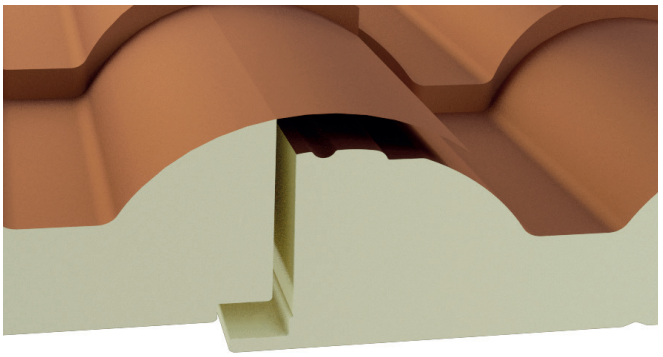
The HIANSA TEJA roof panel is comprised of an exterior sheet that resembles the shape of classic roof tiles, giving the panel an attractive finish.

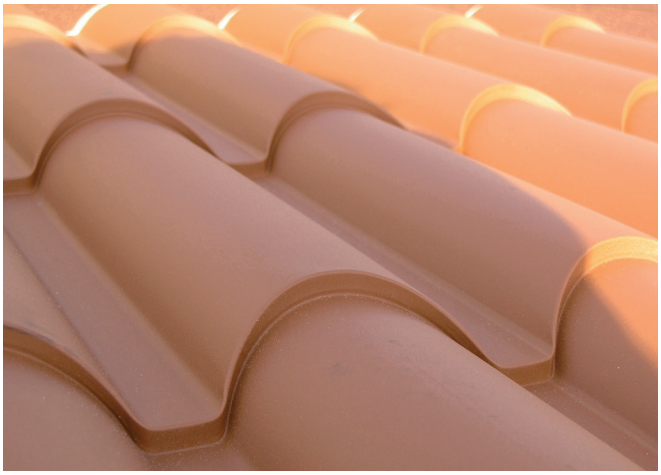
It is a panel with an urban design, recommended for residential use, rural homes and family houses with a minimum pitch of 10%.

It can be installed directly as the only roofing element, or it can be installed on any other surface as an insulating and finishing panel. It combines high mechanical performance, high levels of thermal and acoustic insulation and an excellent aesthetic finish.

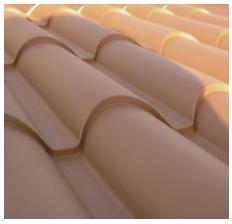
A complete range of installation and finishing accessories have also been designed to complete the constructive system.

- It is quick and easy to install.
- Lightweight and easy to maintain.
- Wide range of finishes.
- Interior wood-effect finish.

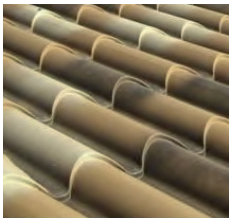




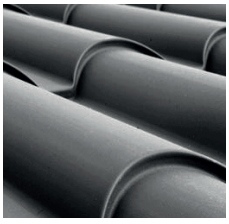
EXTERIOR / INTERIOR FINISHES



ROJO TEJA
RAL 8004 MATE



ALBERO ENVEJECIDO



PIZARRA
RAL 7022

MADERA INTERIOR
TAMBIÉN DISPONIBLE EN BLANCO INTERIOR

PRESSURE LOADS

40 mm 0.4/0.4 mm (kg/m2)	
	2 Openings
L	Pressure
1.0	290
1.2	235
1.4	196
1.6	168
1.8	146
2.0	129

TEJA ROOF

ROOF PANEL

DIE-CUT RIDGE TILE

Width	416x2
Length	2500

SILHOUE

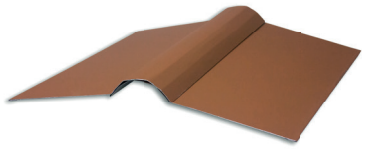
Width	100
Length	1000

DIE-CUT OVER WALL CLOSURE

Width	416
Length	2500

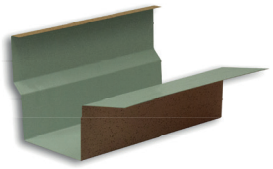
FLAT RIDGE TILE

Width	416x2
Length	2500



GUTTER

Width	416
Length	3000

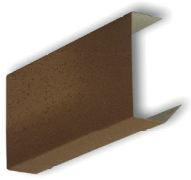


DIE-CUT ON-WALL CLOSURE

Width	416
Length	2500

TYPE "A" SIDE CLOSURE

Width	178
Length	2500



CHANNEL COVER

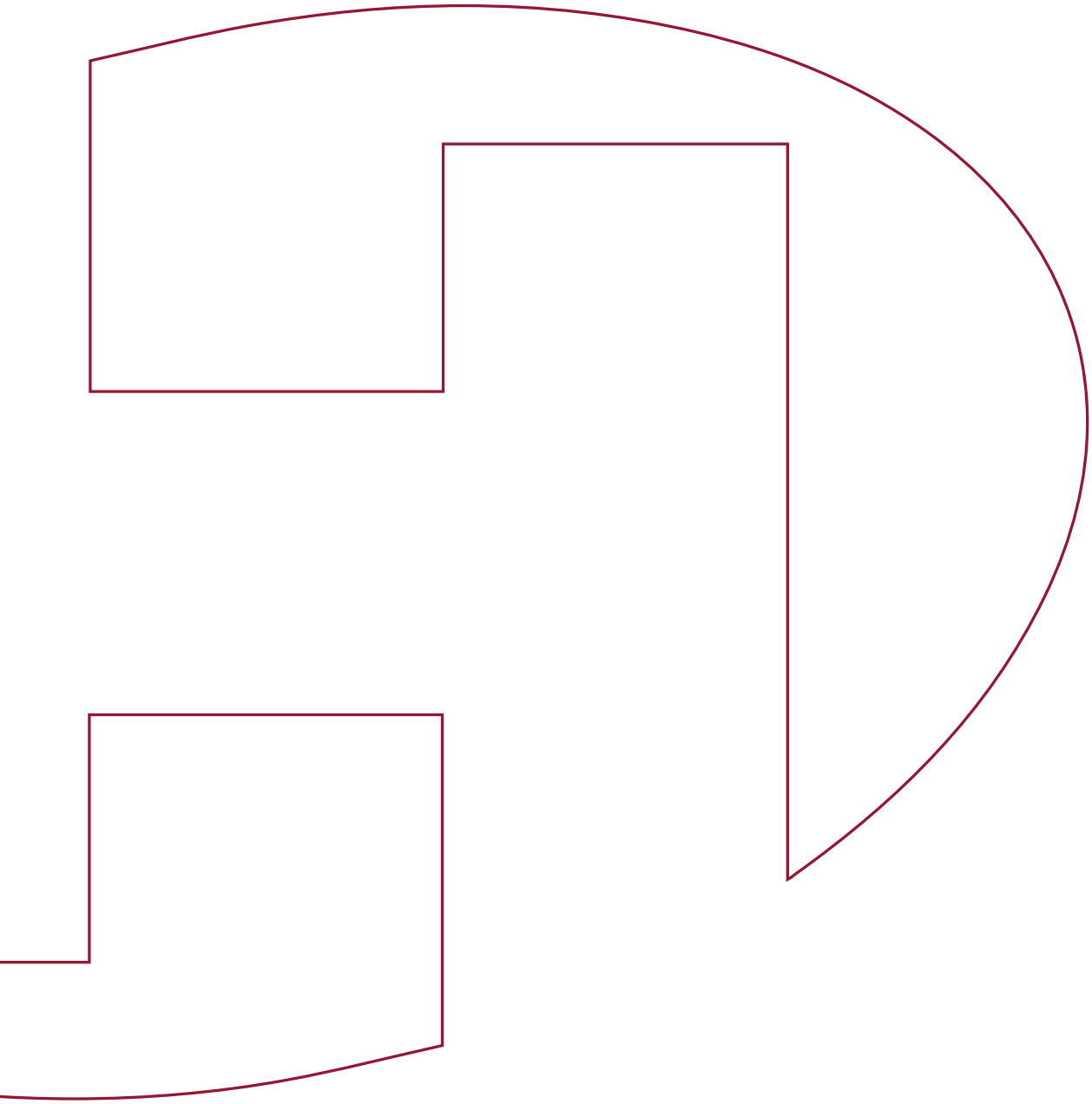
TYPE "C" SIDE CLOSURE

Width	178
Length	2500

TYPE "B" SIDE CLOSURE

Width	178
Length	2500

PAINTED SCREW 6.3x100 P18



FACADE PANELS

FACADE PANELS

DESCRIPTION OF THE PANELS

The Hiansa Panel S.A. composite panel for facade cladding is comprised of two sheets of steel with a rigid polyurethane (PUR) or polyisocyanurate (PIR) foam core on the inside to guarantee maximum heat insulation properties.

The polyurethane and polyisocyanurate foams are very versatile materials, due to their lightness, stability, hygienic properties and reaction to fire.

COMPOSITION

- **EXTERIOR**

  MATERIAL
  Pre-painted steel

  THICKNESS (mm)
  from 35 to 100 mm

- **ISOLAMENTO**

  MATERIAL
  Polyurethane (PUR)
  Polyisocyanurate (PIR)

  USES
  Architectural facades

  PROPERTIES
  Thermal and acoustic insulation

  DENSITY
  40 kg/m^2 (±2 kg)

- **INTERIOR**

  MATERIAL
  Pre-painted steel

  USEFUL WIDTH
  1100 mm
  900 mm (modular)
  1000 mm (modular)

INSULATION

PANEL	HEAT TRANSFER	HEAT TRANSFER
Nominal thickness in mm	K in Kcal/ m^2·h. ºC	K in W/m^2·k
35	0.50	0.59
40	0.44	0.52
50	0.36	0.42
60	0.30	0.36
70	0.26	0.31
80	0.23	0.27
100	0.18	0.21

ACOUSTIC INSULATION						
Frequency Hz	125	250	500	1000	2000	4000
Acoustic insulation db	25	27.5	29	28.5	31	37.5

Standard panel 35 mm thick. Average (TL) 28.8 db.

TECHNICAL CHARACTERISTICS

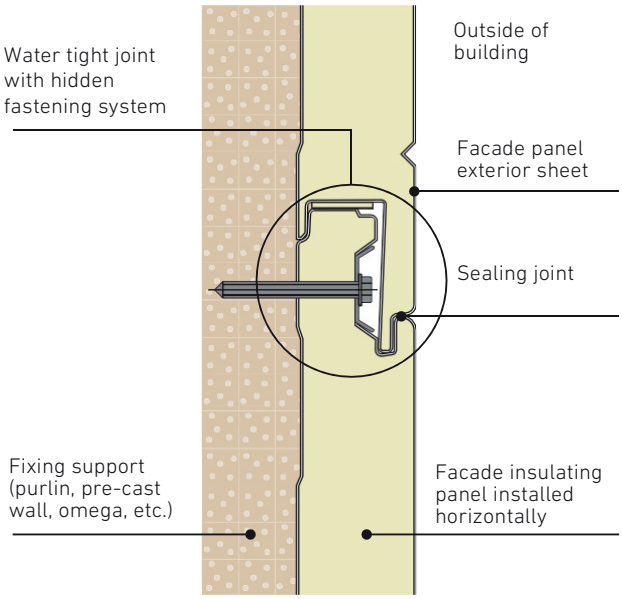
DIMENSIONS AND WEIGHTS	
Nominal thickness	35 mm
Panel thickness	1100 mm
Weight	10.8 kg/m^2
Volume	29.70 m^2/m^3

VERTICAL INSTALLATION

The Hiansa Panel S.A. composite facade panels can be installed both vertically and horizontally. It both cases, two panels are joined with a tongue-in-groove joint, ensuring a water tight, continuous surface with optimum thermal and acoustic insulation properties.

The unique joint design completely hides the fastening systems without the need to use flashings.

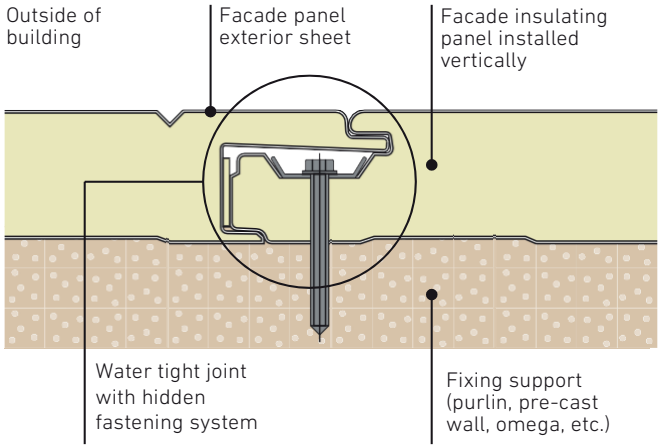
A satisfactory result in accordance with the designer's requirements is guaranteed by the careful control of the raw materials, the manufacturing process and the finished product.



HORIZONTAL INSTALLATION

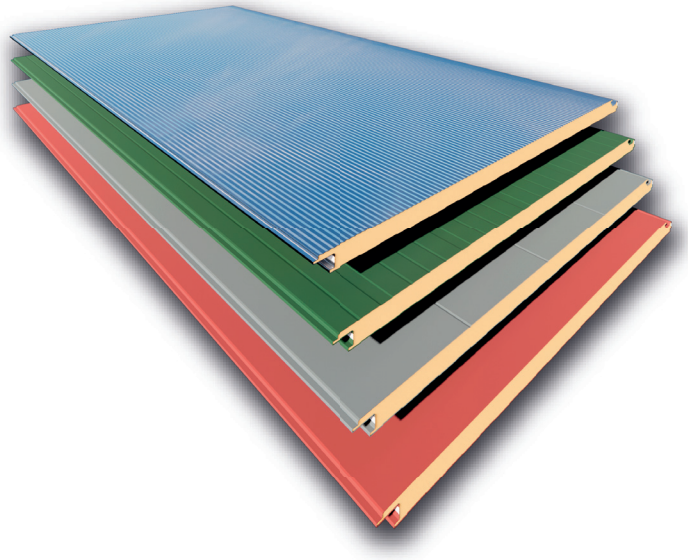
Good practice and experience have shown that architects generally prefer to have a facade made up of horizontal sections.

A solution to this is not an issue with the Hiansa composite facade panel, as the panel design developed by our Technical Department allows this option to be carried out without added complexity. It ensures that the joint is completely water tight with hidden fasteners, without the need to use omega profiles or flashing. A strip is applied to the butt of the profile overlap, ensuring the facade is left water tight while improving its reaction to fire.



FACADE PANEL MPF/PRF/SML/LIS

FACADE PANEL



EXTERIOR FACE
Pre-painted steel

INTERIOR FACE
Pre-painted steel

USEFUL WIDTH 1100 mm

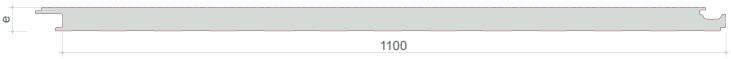
MODULABLE

FM APPROVED

INSULATION
Polyurethane (PUR) and Polyisocyanurate (PIR)

THICKNESS (mm)
35/40/50/60/80/100

USE
Facades

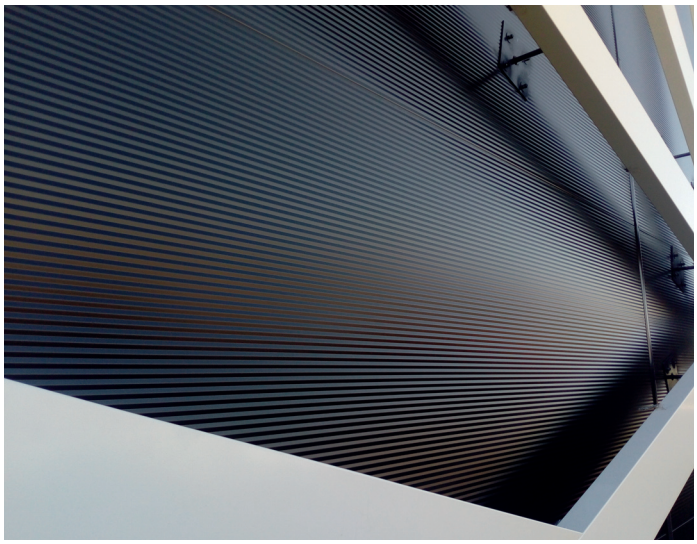


CHARACTERISTICS

The Hiansa composite panel for facade cladding is comprised of 2 sheets of steel with an insulating PUR or PIR foam core on the inside to guarantee maximum heat insulation properties. It can be installed vertically and horizontally. It both cases, the panels are joined with a tongue-in-groove joint, ensuring a water tight, continuous surface.

The unique joint design completely hides the fastening systems without the need to use flashings.

Its surface finish can be completely smooth, semi-smooth or profiled, depending on the number of ribs on the outer sheet and the distance between the ribs. The interior sheet is usually profiled to increase the inertia of the panel. Hiansa offers its clients a wide range of colours and organic finishing coatings. Choosing the most appropriate finish (pre-painted polyester, PVDF, granite) according to the characteristics of the building is important in order to guarantee the best aesthetic result while providing suitable resistance to corrosion and other building pathologies that a wrong choice in finish could cause.



FACADE PANELS MPF/PRF/SML/LIS

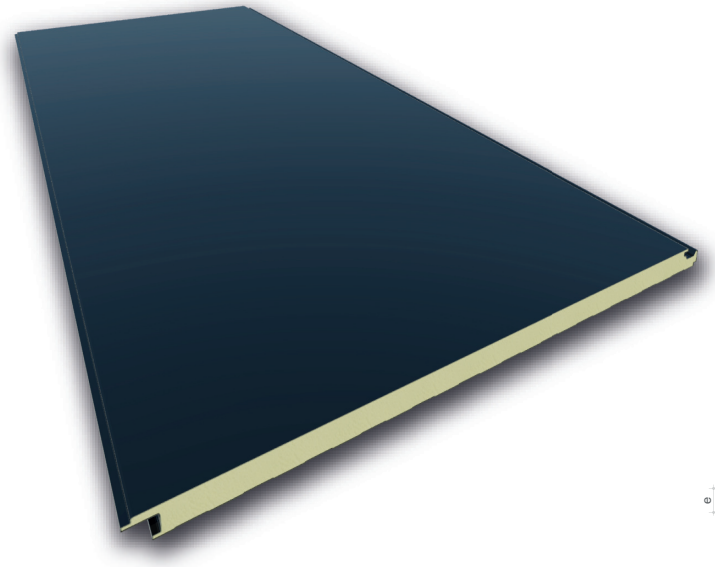
MAXIMUM VALUES OF PRESSURE AND SUCTION LOADS (kp/m^2)

Panel Thickness		35		40		50		60	
Face thickness (d)		0.5/0.5	0.6/0.5	0.5/0.5	0.6/0.5	0.5/0.5	0.6/0.5	0.5/0.5	0.6/0.5
1 Opening	1.5	327/327	333/333	396/396	404/404	541/541	550/550	587/690	587/698
	2.0	193/193	199/199	239/239	246/246	337/337	345/345	440/440	440/450
	2.5	121/121	126/126	153/153	159/159	221/221	229/229	295/295	305/305
	3.0	79/79	83/83	102/102	106/106	151/151	158/158	206/206	214/214
	3.5	54/54	57/57	70/70	74/74	106/106	112/112	147/147	154/154
	4.0	38/38	40/40	49/49	52/52	77/77	81/81	108/108	114/114
	4.5	27/27	29/29	36/36	38/38	57/57	60/60	81/81	85/85
2 Openings	1.5	234/366	229/369	227/437	222/441	214/581	209/581	203/699	197/698
	2.0	188/238	185/241	183/287	180/291	175/389	171/394	167/495	163/500
	2.5	157/163	155/167	154/200	151/204	148/277	145/280	142/337	139/336
	3.0	116/96	119/119	133/120	131/148	128/173	126/194	123/234	121/234
	3.5	85/60	76/88	107/74	93/110	113/105	111/143	109/141	107/172
	4.0	63/41	52/65	77/49	63/83	101/69	88/109	98/92	96/131
	4.5	47/29	37/50	57/35	45/61	76/49	62/82	89/64	81/104

Allowable service overloads, evenly distributed in kg/m^2. The tables have been obtained based on experimental results determined in a laboratory and based on the established calculation methodology in accordance with UNE-EN 14509. These results comply with the Ultimate Limit States prescribed in the legislation and with a deformation Service Limit State limited to L/200.

MODULAR FACADE PANEL 900-1000

FACADE PANEL



EXTERIOR FACE
Pre-painted steel 0.7 / 0.6

INTERIOR FACE
Pre-painted steel 0.5

USEFUL WIDTH 900/1000 mm

MODULABLE

INSULATION
Polyurethane (PUR) and Polyisocyanurate (PIR)

THICKNESS (mm)
35/40/50/60/80/100

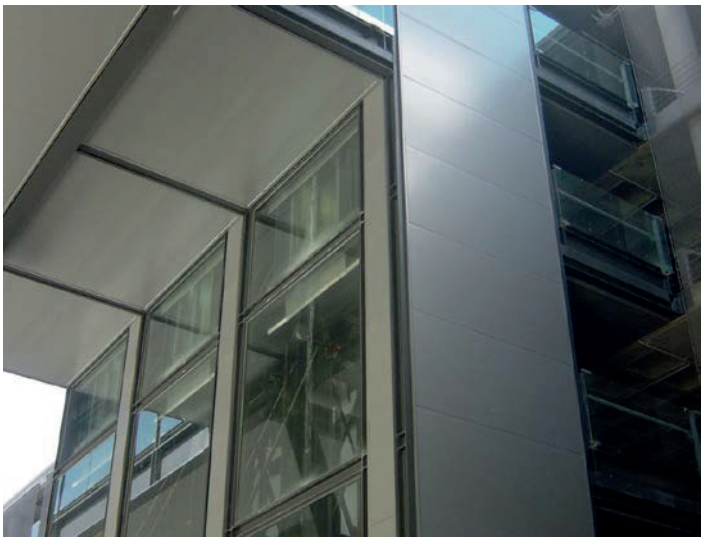
USE
Architectural facades

CHARACTERISTICS

A smooth, continuous facade panel, manufactured with an insulating polyurethane (PUR) or polyisocyanurate (PIR) foam core between two pre-painted steel sheets.

The Hiansa Panel modular panel option means that units may be produced in different useful widths, which offers the best solution to aesthetic and technical demands in all kinds of projects. It is manufactured in a wide range of colours and coatings.

It has been designed to be fitted on architectural facades, with a hidden bolt-on securing system, without the need for profile flashings.



MAXIMUM VALUES OF PRESSURE AND SUCTION LOADS (kp/m^2)

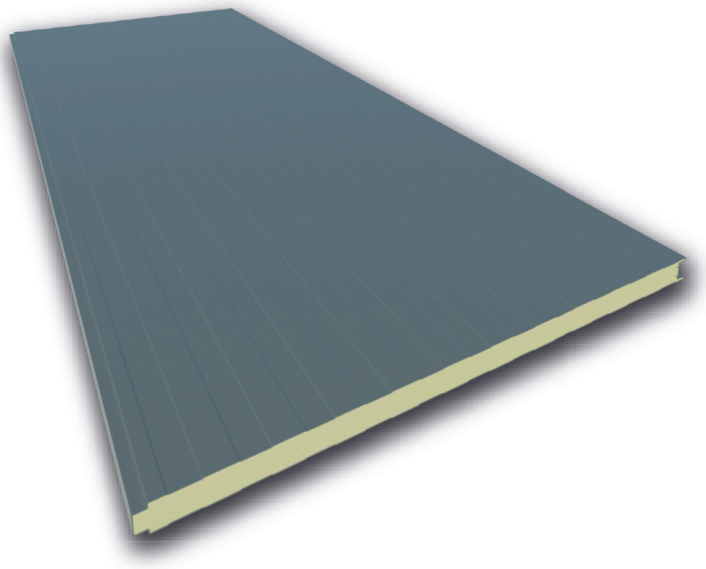
PANEL MODULAR FACADE

Panel Thickness		35		40		50		60	
Face thickness (d)		0.5/0.5	0.6/0.5	0.5/0.5	0.6/0.5	0.5/0.5	0.6/0.5	0.5/0.5	0.6/0.5
1 Opening	1.5	327/327	333/333	396/396	404/404	541/541	550/550	587/690	587/698
	2.0	193/193	199/199	239/239	246/246	337/337	345/345	440/440	440/450
	2.5	121/121	126/126	153/153	159/159	221/221	229/229	295/295	305/305
	3.0	79/79	83/83	102/102	106/106	151/151	158/158	206/206	214/214
	3.5	54/54	57/57	70/70	74/74	106/106	112/112	147/147	154/154
	4.0	38/38	40/40	49/49	52/52	77/77	81/81	108/108	114/114
	4.5	27/27	29/29	36/36	38/38	57/57	60/60	81/81	85/85
2 Openings	1.5	234/366	229/369	227/437	222/441	214/581	209/581	203/699	197/698
	2.0	188/238	185/241	183/287	180/291	175/389	171/394	167/495	163/500
	2.5	157/163	155/167	154/200	151/204	148/277	145/280	142/337	139/336
	3.0	116/96	119/119	133/120	131/148	128/173	126/194	123/234	121/234
	3.5	85/60	76/88	107/74	93/110	113/105	111/143	109/141	107/172
	4.0	63/41	52/65	77/49	63/83	101/69	88/109	98/92	96/131
	4.5	47/29	37/50	57/35	45/61	76/49	62/82	89/64	81/104

Allowable service overloads, evenly distributed in kg/m^2. The tables have been obtained based on experimental results determined in a laboratory and based on the established calculation methodology in accordance with UNE-EN 14509. These results comply with the Ultimate Limit States prescribed in the legislation and with a deformation Service Limit State limited to L/200.

MURO

FACADE PANEL



EXTERIOR FACE
Pre-painted steel

INTERIOR FACE
Pre-painted steel

USEFUL WIDTH 1000 mm

INSULATION
Polyurethane (PUR) and Polyisocyanurate (PIR)

THICKNESS (mm)
30/40/50

USE
Facades, prefabricated huts, false ceilings, refrigeration chambers and subdivisions

CHARACTERISTICS

Facade panel with visible fasteners composed of two sheets of pre-painted steel and an inner insulating core of polyurethane or polyisocyanurate foam. It is recommended for use in prefabricated huts, false ceilings and subdivisions.

MURO

WORKING LOADS FOR SANDWICH TYPE SELF-SUPPORTING PANELS

	30/0.5-0.5(kg/m²)		40/0.5-0.5(kg/m²)		50/0.5-0.5(kg/m²)	
	1 Opening	2 Openings	1 Opening	2 Openings	1 Opening	2 Openings
L	Pressure/Suction	Pressure/Suction	Pressure/Suction	Pressure/Suction	Pressure/Suction	Pressure/Suction
1.4	250/250	157/157	344/344	172/172	415/415	187/187
1.6	194/194	136/136	283/283	149/149	338/338	162/162
1.8	153/153	120/120	223/223	131/131	266/266	142/142
2.0	122/122	107/107	181/181	117/117	216/216	135/126
2.2	99/99	92/97	150/150	105/105	179/179	132/113
2.4	81/81	75/88	126/126	96/96	151/151	117/103
2.6	67/67	63/81	107/107	88/88	127/127	106/95
2.8	56/56	53/74	92/92	75/82	110/110	90/94
3.0	47/47	46/63	80/80	64/76	96/96	77/93
3.2	40/40	40/55	68/68	56/71	82/82	67/87
3.4	34/34	35/48	59/59	49/67	71/71	59/81
3.6	29/29	31/43	51/51	43/60	62/62	51/73
3.8	25/25	28/38	44/44	38/53	53/53	46/64

Allowable service overloads, evenly distributed in kg/m². The tables have been obtained based on experimental results determined in a laboratory and based on the established calculation methodology in accordance with UNE-EN 14509. These results comply with the Ultimate Limit States prescribed in the legislation and with a deformation Service Limit State limited to L/200.

REFRIGERATION PANELS

REFRIGERATION PANEL

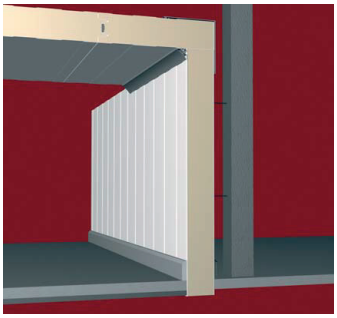
DESCRIPTION

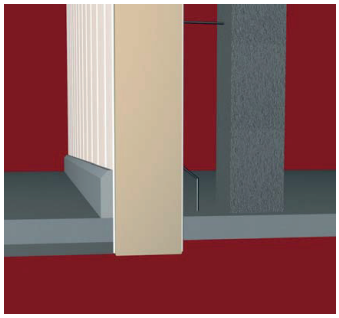
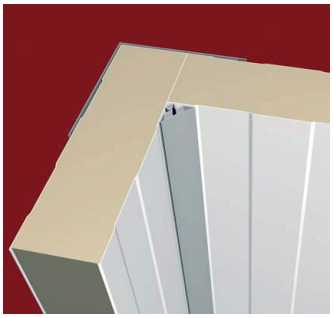
The foundation of a refrigerated panel lies in obtaining an assembly unit with a great capacity for thermal insulation, which is mechanically robust, and dimensionally very stable over time.
The core of the panel is made of rigid injected polyurethane foam, the best known thermal insulator, while the outer faces are made of shaped steel that provides the assembly with extraordinary mechanical resistance. The adherence between both elements gives the panel greater quality against bending and buckling, enhanced by the ribbing of the steel.
But also, as the food industry demands, the refrigerating panel must be a material that is tight against water vapor, and resistant to certain aggressive environments, such as salinity and the presence of various acids added to humidity.

The steel provides a continuous vapor barrier for the material on both sides, the galvanized treatments received prevent oxidation of the material and the correct choice of covering finishes protects against humidity and acids.
By assembling these panels, any configuration of an agri-food industry can be obtained.

FUNCTIONS AND ADVANTAGES

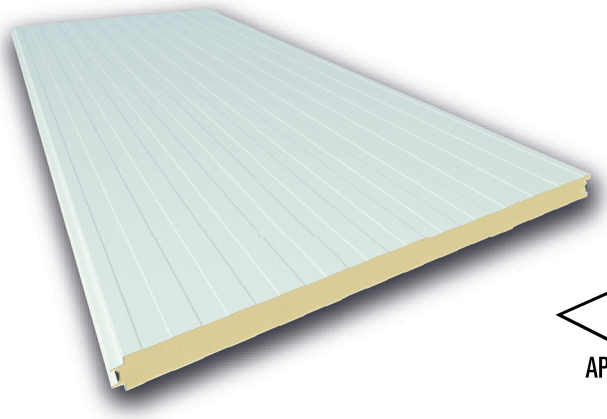
- Its very high insulation capacity provides great economic savings throughout the life of the installation.
- The mechanical resistance allows the facilities to be self-supporting, without using supports in the main structure of the building, facilitating the work of the designer and the calculator, which means considerable economic savings in the initial investment.
- Their dimensional stability makes them ideal for controlling environment, temperature, pressure, humidity and composition parameters.
- Its smooth surface finish, without pores or irregularities that prevent the accumulation of dirt and prevent the proliferation of organisms.
- The panels are very easy to clean.
- It is presented already finished at the facilities, without the need to add raw materials or other components, which facilitates the organization of the project.
- The panels are very light, and therefore easy to handle and assemble.
- Custom manufacturing, without waste, without causing additional costs
- Removable, allowing its relocation, facilitating the reform, expansion, even the partial or total transfer of the installation
- Easy cutting and sealing, they allow the opening of holes for accesses, pipes and machinery.
- Its mechanical resistance allows its use as a substrate for lighting installations and conduits, and can be used as passable technical corridors for maintenance tasks.
- Its components are innocuous to health, without the need to use any additional measures in their exposure.
- The versatility of use and high performance make them suitable for all types of industrial facilities including offices, false ceilings, laboratories, etc.



FRIGO

REFRIGERATION



EXTERIOR FACE
Pre-painted steel

INTERIOR FACE
Pre-painted steel

INSULATION
Polyurethane (PUR) and Polyisocyanurate (PIR)

THICKNESS (mm)
60/80/100/120/140/160 180/200

FM APPROVED

USEFUL WIDTH 1100 mm

USE
Refrigeration chambers and subdivisions

CHARACTERISTICS

- The nominal thickness of the panel defines its capacity to be used at different temperatures, for conservation, freezing and deep freezing. Increasing the thickness of the panel lowers its heat transfer coefficient.
- The type of ribs and steel thickness used determines the maximum useful length of the panel, depending on its vertical or horizontal arrangement.
- The colour of the materials used influence the lighting characteristics of facilities in terms of reflected light, while also determining the surface temperature of the panel itself.
- The choice of foam determines the fire-resistance characteristics of the panel.
- The joint design provides excellent sealing characteristics between panel units and also modifies fire-resistance properties.
- The choice of finish determines the moisture, salinity, concentration and maximum acid content with which the installation can work properly. Therefore, the type of products that are to be handled and stored in the installation, and the atmosphere they generate should be taken into account when designing it.
- Hiansa has submitted its panels to an exhaustive series of tests at the prestigious Afiti Licof laboratory in Toledo, where it has obtained the corresponding classifications according to the Spanish and European Standards.

TECHNICAL SPECIFICATIONS									
Thickness (mm)		60	80	100	120	140	160	180	200
Heat transfer coefficient (k)	Kcal/h m^2 °C	0.270	0.200	0.160	0.130	0.120	1.100	0.090	0.080
	W/m^2 °C	0,318	0,241	0,194	0,162	0,140	0,122	0,109	0,098
Panel weight	kg/m^2	11.32	12.12	12.92	13.72	14.52	15.32	16.12	16.92

1 OPENING (2 SUPPORTS)

Panel Thickness (mm)	Spans (m)															
	3	3.5	4	4.5	5	5.5	6	6.5	7	7.5	8	8.5	9	9.5	10	10.5
60	198	128	94	64	45	30										
80	281	179	129	93	73	52	28									
100	331	228	180	150	118	96	78	64	41							
120	364	293	230	190	151	120	96	76	63	32						
140		380	291	231	184	147	121	99	82	54	34					
160			334	268	213	176	147	123	100	83	69	48				
180			359	299	240	207	173	146	119	98	82	70	51	27		
200			383	333	277	230	200	170	141	116	98	85	73	63	22	

2 OR MORE OPENINGS (3 OR MORE SUPPORTS)

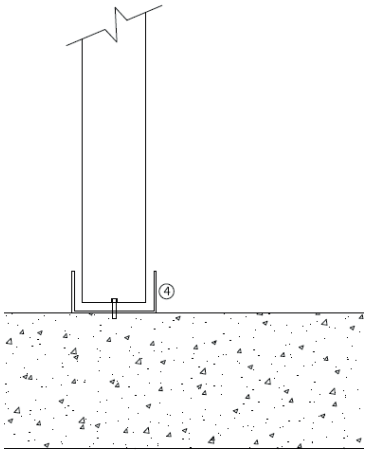
Panel Thickness (mm)	Spans (m)												
	2	3	3.5	4	4.5	5	5.5	6	6.5	7	7.5	8	8.5
60	303	216	152	111	90	67	52						
80	362	287	223	174	138	105	83	65	54				
100		391	282	210	167	133	108	89	75	63	54		
120		403	311	271	231	188	153	121	102	83	72	58	51
140		416	334	288	245	202	168	136	116	96	85-2	69	59
160			400	341	289	243	208	175	152	131	111	94	81
180			439	377	320	270	229	196	169	146	124	108	94
200			468	402	344	291	248	211	182	158	142	122	109

Allowable service overloads, evenly distributed in kg/m^2. The tables have been obtained based on experimental results determined in a laboratory and based on the established calculation methodology in accordance with UNE-EN 14509. These results comply with the Ultimate Limit States prescribed in the legislation and with a deformation Service Limit State limited to L/200.

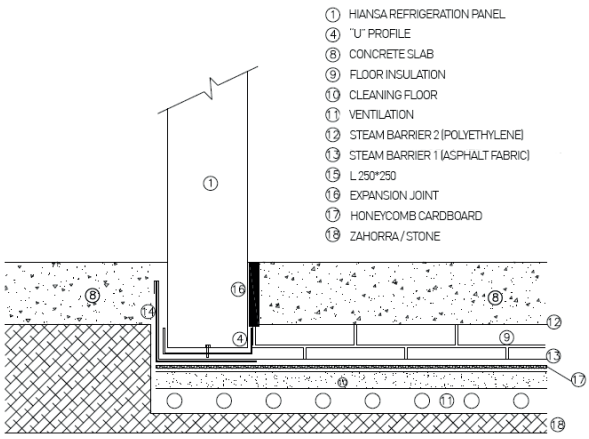
REFRIGERATION PANEL

CONSTRUCTION DETAILS

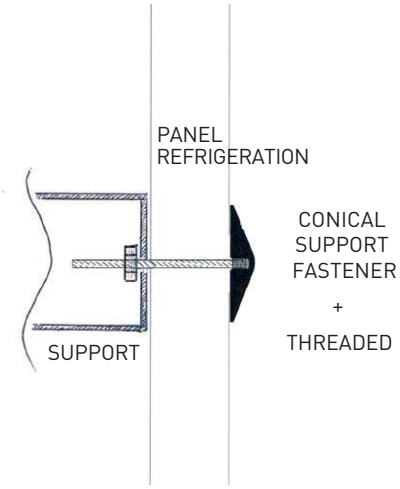
The panel can be mounted both vertically and horizontally by means of the tongue-and-groove joint, ensuring in both cases the continuity of the exterior wall, which guarantees optimal thermal and acoustic performance.



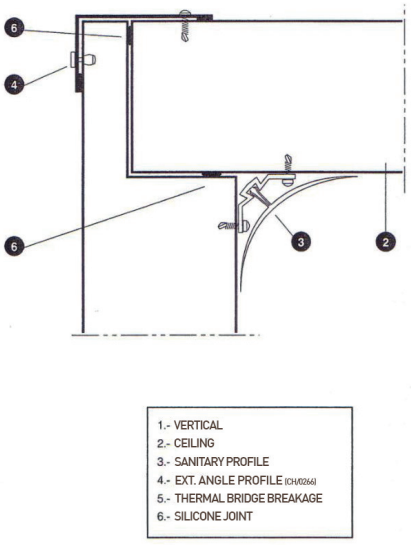
BASE OF CONSERVATION PANEL



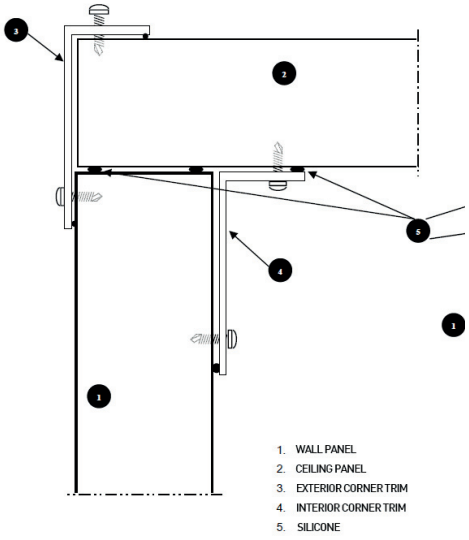
BASE OF FREEZING PANEL



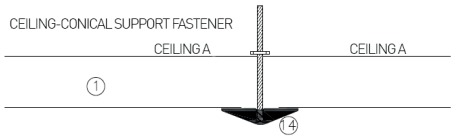
FAÇADE SUPPORT BY CONICAL SUPPORT FASTENER



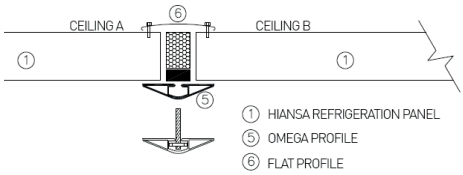
PRESENTATION STORAGE PANEL



PRESENTATION FREEZING PANEL



SUSPENDED CEILING BY CONCIAL SUPPORT FASTENER



OMEGA SUSPENDED CEILING

ROCK WOOL PANELS

ROOF PANEL - HiRock

ROOF PANEL HIDDEN FIXING

HiRock By Hiansa Panel

EXTERIOR FACE
Pre-painted steel

INTERIOR FACE
Pre-painted steel

USEFUL WIDTH:
1000 mm (39.37 in.)

INSULATION
Rock Wool
100kg/m^3 - 125kg/m^3

THICKNESSES mm (in.)
40/50/60/80/100
(1.57/1.97/2.36/3.15/3.94)

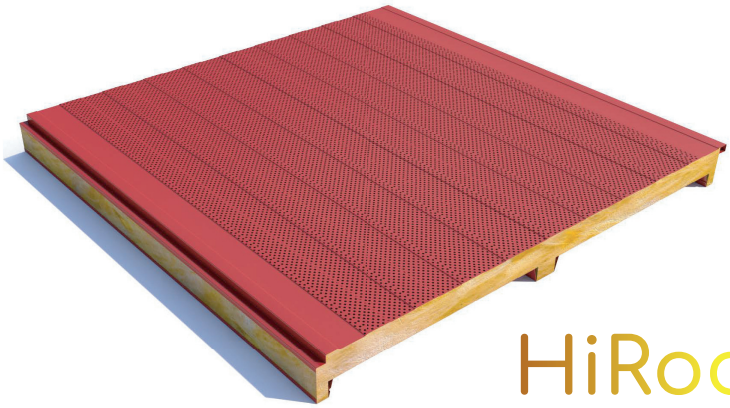
USE:
Roofs

ISO 9001 BUREAU VERITAS Certification

CE

ROOF PANEL - HiRock - ACOUSTIC

ROOF PANEL HIDDEN FIXING



HiRock By Hiansa Panel

EXTERIOR FACE
Pre-painted steel

INTERIOR FACE
Pre-painted steel

USEFUL WIDTH:
1000 mm (39.37 in.)

INSULATION
Rock Wool
100kg/m^3 - 125kg/m^3

THICKNESSES mm (in.)
40/50/60/80/100
(1.57/1.97/2.36/3.15/3.94)

USE:
Roofs

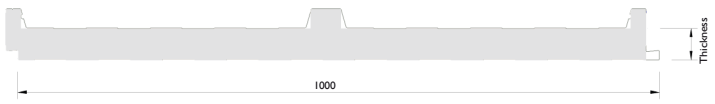
ISO 9001 BUREAU VERITAS Certification

CE

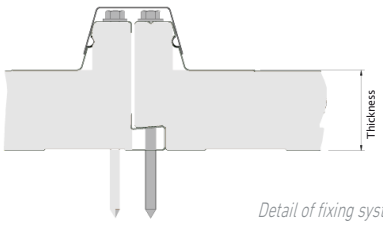
TECHNICAL SPECIFICATIONS

Fire: A2-s1,d0 || Water: Non-hydrophilic || Acoustic: depending on its thickness | Neither causes nor favors the corrosion of materials. It does not promote bacterial development.

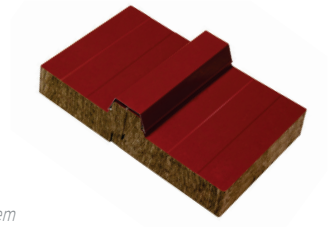
Panel with three ribs and flashing that o□ers the features of the traditional panel (with polyurethane insulation): watertightness, thermal insulation, ease of assembly and also the advantages of a flame-retardant rock wool insulation.
Possibility of pre-fabricated transverse overlap with a maximum length of 300 mm.



Micro-profile finish on both sides



Detail of fixing system



ROCK WOOL ROOF PANELS - HiRock - 125 kg/m^3

Thickness	mm (in.)		40 (1.57)	50 (1.97)	60 (2.36)	80 (3.15)	100 (3.94)
Weight [1]	[kg/m^2]		11.86	12.86	13.86	15.86	17.84
Heat transfer [1]	[W/m^2·K]	Roof	0.814	0.661	0.555	0.422	0.340
		Façade	0.795	0.649	0.547	0.417	0.337
Fire resistance [2]	UNE-EN 13.501-1		A2-s1,d0				
Fire resistance [2]	UNE-EN 13.501-2		-	EI 30	EI 30	EI 90 E 120	EI 180

[1] Values for nominal sheet thicknesses 0.5 mm - 0.5 mm and panel width of 1 m.
[2] See available certificates.

ROCK WOOL ROOF PANELS - HiRock - Acoustic - 125 kg/m^3

Thickness	mm [in.]		40 (1.57)	50 (1.97)	60 (2.36)	80 (3.15)	100 (3.94)
Weight [1]	[kg/m^2]		10.90	11.90	12.90	14.89	16.88
Heat transfer [1]	[W/m^2·K]	Roof	0.814	0.661	0.555	0.422	0.340
		Façade	0.795	0.649	0.547	0.417	0.337
Fire resistance [2]	UNE-EN 13.501-1		A2-s1,d0				
Fire resistance [2]	UNE-EN 13.501-2		-	EI 30	EI 30	EI 90 E 120	EI 180
Acoustic absorption	[aw]		0.85				
Acoustic Insulation (Rw)[3]	[dB]		-	34 dB	34 dB	34 dB	34 dB

[1] Values for nominal sheet thicknesses 0.5 mm - 0.5 mm and panel width of 1 m.
[2] See available certificates.
[3] Query for C (pink noise) and Ctr (Traffic Noise) values

FAÇADE PANEL - HiRock

FAÇADE PANEL HIDDEN FIXING

HiRock By Hiansa Panel

EXTERIOR FACE
Pre-painted steel

INTERIOR FACE
Pre-painted steel

USEFUL WIDTH
1000 mm (39.37 in.)

INSULATION
Rock Wool
100kg/m³ - 125kg/m³

THICKNESSES mm (in.)
40/50/60/80/100
(1.57/1.97/2.36/3.15/3.94)

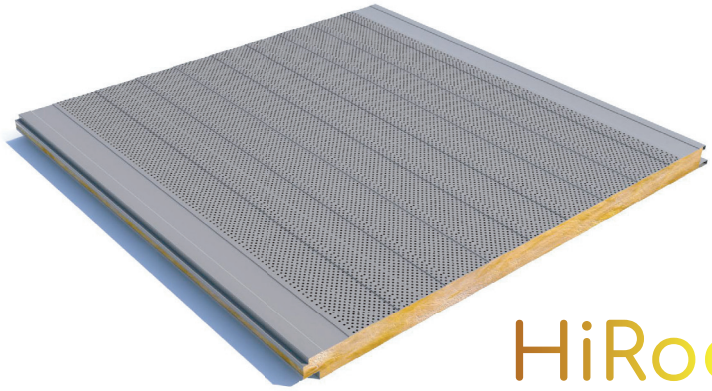
USE:
Façades

ISO 9001 BUREAU VERITAS Certification

CE

FAÇADE PANEL - HiRock - ACOUSTIC

FAÇADE PANEL HIDDEN FIXING



HiRock By Hiansa Panel

EXTERIOR FACE
Pre-painted steel

INTERIOR FACE
Pre-painted steel

USEFUL WIDTH
1000 mm (39.37 in.)

INSULATION
Rock Wool
100kg/m³ - 125kg/m³

THICKNESSES mm (in.)
40/50/60/80/100
(1.57/1.97/2.36/3.15/3.94)

USE:
Façades

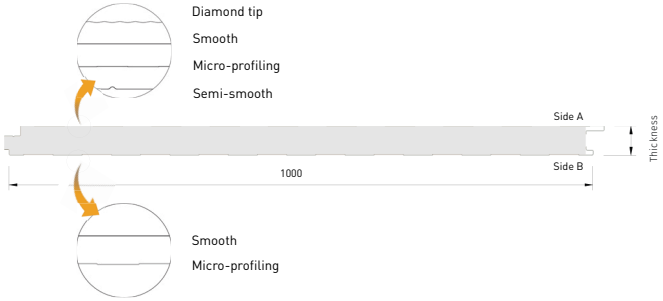
ISO 9001 BUREAU VERITAS Certification

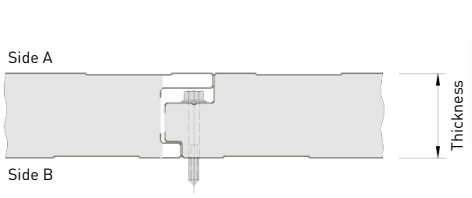
CE

TECHNICAL SPECIFICATIONS

Fire: A2-s1 ,d0 II Water: Non-hydrophilic II Acoustic: depending on its thickness I Neither causes nor favors the corrosion of materials. It does not promote bacterial development.

The enclosure solution for façades is a panel with hidden screws that can be made in different finishes (micro-profiling, semi-smooth and smooth), which combined with the different possibilities of materials (Steel, aluminum) and qualities of the cladding and colors, allows for offering aesthetic and technical solutions that are adapted to each project.





Detail of fixing system

ROCK WOOL FAÇADE PANELS - HiRock - 125 kg/m³

Thickness	mm [in.]		40 (1.57)	50 (1.97)	60 (2.36)	80 (3.15)	100 (3.94)
Weight [1]	[kg/m²]		11.56	12.53	13.50	15.43	17.37
Heat transfer [1]	[W/m²·K]	Roof	0.970	0.793	0.671	0.456	0.358
		Façade	0.948	0.778	0.660	0.450	0.354
Fire resistance [2]	UNE-EN 13.501-1		A2-s1,d0				
Fire resistance [2]	UNE-EN 13.501-2		-	EI 30	EI 30	EI 90 E 120	EI 180

[1] Values for nominal sheet thicknesses 0.5 mm - 0.5 mm and panel width of 1 m.

[2] See available certificates.

ROCK WOOL FAÇADE PANELS - HiRock - Acoustic - 125 kg/m³

Thickness	mm [in.]		40 (1.57)	50 (1.97)	60 (2.36)	80 (3.15)	100 (3.94)
Weight [1]	[kg/m²]		10.61	11.58	12.54	14.48	16.42
Heat transfer [1]	[W/m²·K]	Roof	0.970	0.793	0.671	0.456	0.358
		Façade	0.948	0.778	0.660	0.450	0.354
Fire resistance [2]	UNE-EN 13.501-1		A2-s1,d0				
Fire resistance [2]	UNE-EN 13.501-2		-	EI 30	EI 30	EI 90 E 120	EI 180
Acoustic absorption	[aw]		0.85				
Acoustic Insulation (Rw)[3]	[dB]		-	30 dB	31 dB	31 dB	31 dB

[1] Values for nominal sheet thicknesses 0.5 mm - 0.5 mm and panel width of 1 m.

[2] See available certificates.

[3] Query for C (pink noise) and Ctr (Traffic Noise) values

PARTITIONING PANEL - HiRock

VIEW FASTENING OF PARTITIONING PANEL

HiRock By Hiansa Panel

EXTERIOR FACE
Pre-painted steel

INTERIOR FACE
Pre-painted steel

USEFUL WIDTH:
1000 mm (39.37 in.)

INSULATION
Rock Wool
100kg/m^3 - 125kg/m^3

THICKNESSES mm (in.)
40/50/60/80/100/120
(1.57/1.97/2.36/3.15/3.94/4.72)

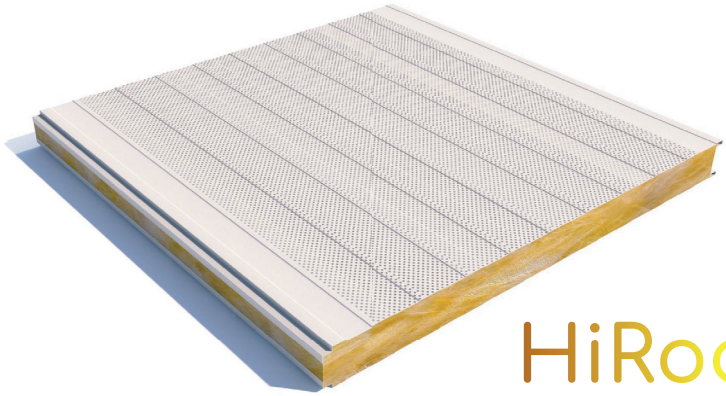
USE:
Façades, Partitioning

ISO 9001 BUREAU VERITAS Certification

CE

PARTITIONING PANEL - HiRock - ACOUSTIC

VIEW FASTENING OF PARTITIONING PANEL



HiRock By Hiansa Panel

EXTERIOR FACE
Pre-painted steel

INTERIOR FACE
Pre-painted steel

USEFUL WIDTH:
1000 mm (39.37 in.)

INSULATION
Rock Wool
100kg/m^3 - 125kg/m^3

THICKNESSES mm (in.)
40/50/60/80/100/120
(1.57/1.97/2.36/3.15/3.94/4.72)

USE:
Façades, Partitioning

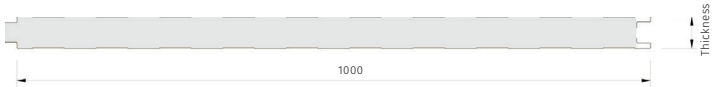
ISO 9001 BUREAU VERITAS Certification

CE

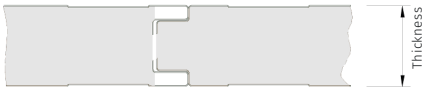
TECHNICAL SPECIFICATIONS

Fire: A2-s1 II Water: Non-hydrophilic II Acoustic: depending on its thickness I Neither causes nor favors the corrosion of materials- It does not promote bacterial development.

Screw-fastened panel, View of application in all types of modular solutions. It has the same types of finishes and aesthetic solutions as the façade panel.



Micro-profile finish on both sides



Detail of tongue and groove joint system

ROCK WOOL PARTITIONING PANELS - HiRock - 125 kg/m^3

Thickness	mm [in.]		40 (1.57)	50 (1.97)	60 (2.36)	80 (3.15)	100 (3.94)	120 (4.72)
Weight [1]	[kg/m^2]		10.54	11.54	12.53	14.53	16.52	-
Heat transfer [1]	[W/m^2·K]	Roof	0.904	0.715	0.584	0.434	0.347	-
		Façade	0.884	0.702	0.575	0.428	0.343	-
Fire resistance [2]	UNE-EN 13.501-1		A2-s1,d0					
Fire resistance [2]	UNE-EN 13.501-2		-	EI 30	EI 30	EI 90 E 120	EI 180	-

[1] Values for nominal sheet thicknesses 0.5 mm - 0.5 mm and panel width of 1 m.

[2] See available certificates.

ROCK WOOL PARTITIONING PANELS - HIROCK - Acoustic - 125 kg/m^3

Thickness	mm [in.]		40 (1.57)	50 (1.97)	60 (2.36)	80 (3.15)	100 (3.94)	120 (4.72)
Weight [1]	[kg/m^2]		10.54	11.54	12.53	14.53	16.52	-
Heat transfer [1]	[W/m^2·K]	Roof	0.904	0.715	0.584	0.434	0.347	-
		Façade	0.884	0.702	0.575	0.428	0.343	-
Fire resistance [2]	UNE-EN 13.501-1		A2-s1,d0					
Fire resistance [2]	UNE-EN 13.501-2		-	EI 30	EI 30	EI 90 E 120	EI 180	-
Acoustic absorption	[aw]		0.85					
Acoustic Insulation (Rw) [3]	[dB]		-	30 dB	31 dB	31 dB	32 dB	-

[1] Values for nominal sheet thicknesses 0.5 mm - 0.5 mm and panel width of 1 m.

[2] See available certificates.

[3] Query for C (pink noise) and Ctr (Traffic Noise) values

HIGH PERFORMANCE PANELS

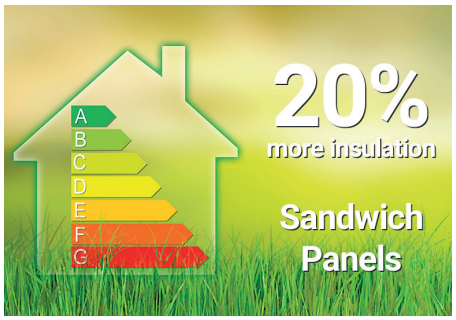
The next generation of Sandwich Panels

PANELS WITH HIGH PERFORMANCE INSULATION TECHNOLOGY

Ultra is an innovated range of Sandwich Panels, featuring outstanding characteristics of Sustainability, Insulation and Fire safety.

Developed in collaboration with DOW and its V PLUS PERFORM™ panel insulation technology, Ultra helps create future-ready buildings by placing sustainability, energy-efficiency, and people at the heart of design.

FEATURES OF THE ULTRA SANDWICH PANEL



More **sustainable** buildings

The ULTRA panel contributes notably to the **GREEN, LEED V4 and BREAAM** Sustainable Construction Classifications, to reduce the environmental impact generated by buildings, influencing the reduction of CO2 emissions, the recyclability of materials and the limitation of carbon emissions COV.

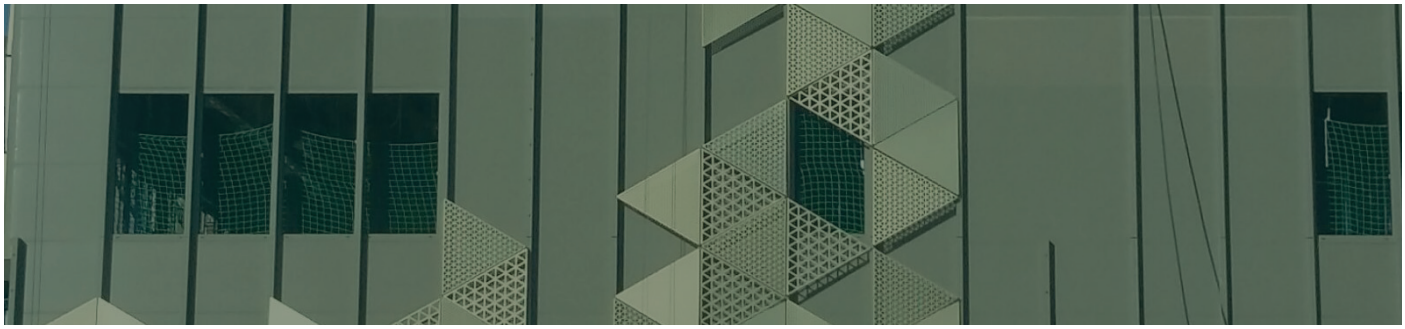
Better **energy efficiency**

Ultra is the next generation in Sandwich Panel technology, offering panels with the same thickness that improve insulation by up to **20%**, helping designers optimize the energy performance of buildings. Likewise, it offers the possibility of obtaining the same level of insulation with a smaller panel thickness.

Greater **security**

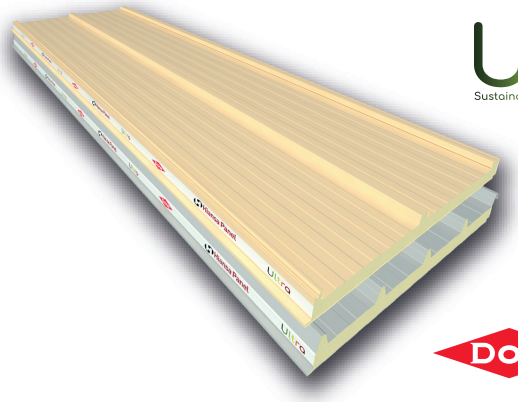
It is the first panel in its range with a polyurethane core, which certifies fire resistance up to **E-120**(*) and **EI-90**(*). It also contributes to improving the reaction to fire thanks to its Bs1d0 certification. This feature reduces the spread of smoke in the event of a fire and improves the safety of buildings.

* According to the UNE EN 13501-2:2016 standard for Ultra Refrigerating Panels with a thickness of 200mm up to 4m in height.



PANEL CUB 3GR - ULTRA & PANEL CUB 5GR - ULTRA

ROOF PANEL



Ultra
SustainabilityInsulationFireProtection

DOW
Made with V PLUS *Perform*™ insulation technology

EXTERIOR FACE
Pre-painted steel
0.5 mm (0.02 in.)

INTERIOR FACE
Pre-painted steel
0.5 mm (0.02 in.)

ANCHO ÚTIL 1000 mm

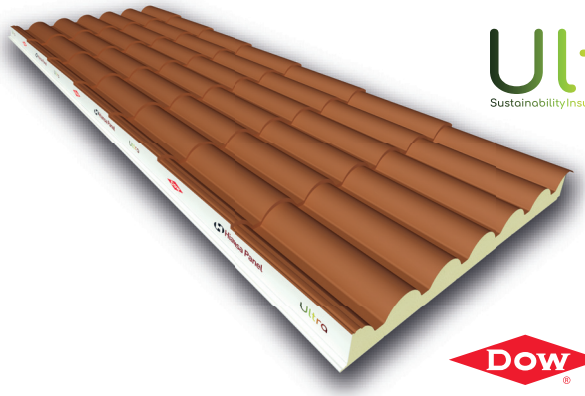
INSULATION
High-performance polyurethane

THICKNESSES mm (in.)
50/60/80/100
(1.97/2.36/3.15/3.94)

USE
Sloping roof surfaces

TEJA PANEL - ULTRA

ROOF PANEL



Ultra
SustainabilityInsulationFireProtection

DOW
Made with V PLUS *Perform*™ insulation technology

EXTERIOR FACE
Pre-painted steel

INTERIOR FACE
Pre-painted steel

EXTERIOR FINISH COLOR
Aged Ochre-Yellow
Teja Red
Slate

USEFUL WIDTH
1000 mm (39.37 in.)

INTERIOR FINISH COLOR
Standard colors
Wood finish

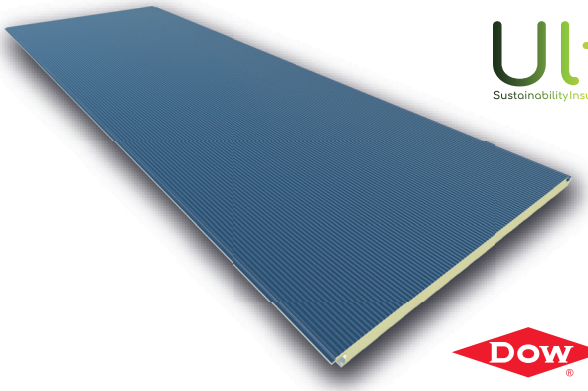
INSULATION
High-performance polyurethane

ESPESORES (mm)
40
(1.57)

USE
Sloping roof surfaces

FAÇADE PANEL MPRF / PERF / SMLS / LISO - ULTRA

FAÇADE PANEL



Ultra
SustainabilityInsulationFireProtection

DOW
Made with V PLUS *Perform*™ insulation technology

EXTERIOR FACE
Pre-painted steel
0.5 mm (0.02 in.)

INTERIOR FACE
Pre-painted steel
0.5 mm (0.02 in.)

USEFUL WIDTH
1100 mm (43.31 in.)

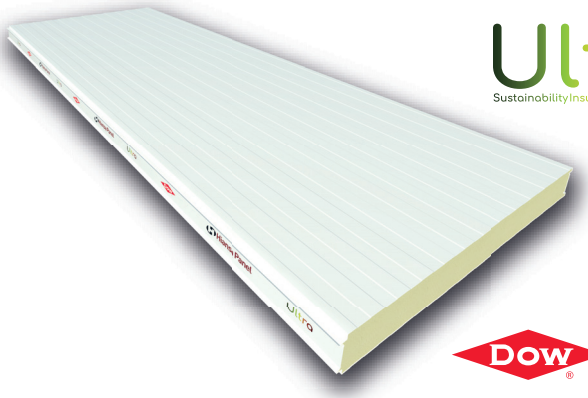
INSULATION
High-performance polyurethane

THICKNESSES mm (in.)
50/60/80/10
(1.97/2.36/3.15/3.94)

USE
Façades

REFRIGERATION PANEL - ULTRA

WALL PANEL



Ultra
SustainabilityInsulationFireProtection

DOW
Made with V PLUS *Perform*™ insulation technology

EXTERIOR FACE
Pre-painted steel

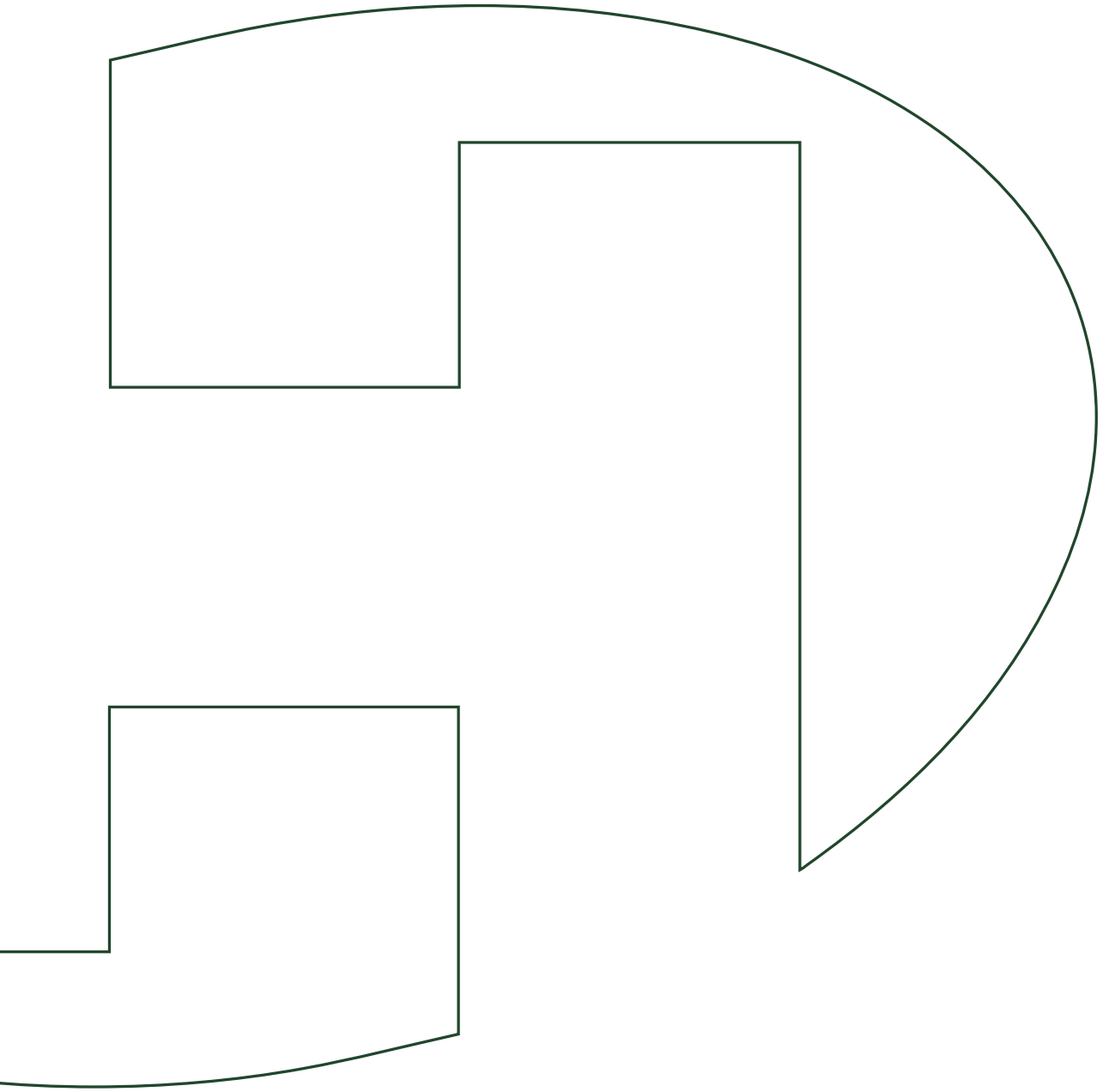
INTERIOR FACE
Pre-painted steel

USEFUL WIDTH
1100 mm (43.31 in.)

INSULATION
High-performance polyurethane

THICKNESSES mm (in.)
60/80/100/120/140/160/180/200
(2.36/3.15/3.94/4.72/5.51/6.30/7.09/7.87)

USE
Cold rooms and partitioning



LIGHTING PANELS

LIGHTING PANELS

DESCRIPTION OF THE PANELS

Polycarbonate is used in an innovative glazing system for facades and roofs, which offers the designer a great deal of freedom. Its important physical, mechanical and environmental properties make polycarbonate a material with great functional and aesthetic benefits.

It is an ideal product for translucent enclosures, sky lights in facades and roofs, canopies, greenhouses, swimming pools, etc.

PROPERTIES

PROTECTIVE BARRIER AGAINST ULTRAVIOLET RADIATION

The polycarbonate incorporates UV absorbers which allow it to maintain long term optical qualities, colour stability and transparency, while protecting the materials stored below.

LIGHT TRANSMISSION

It allows a high percentage of light to pass through. This ratio can be changed by using coloured plates or by increasing the thickness.

MECHANICAL RESISTANCE

As it is a highly flexible material, it is particularly suitable for large sky lights.

THERMAL INSULATION

It has high thermal resistance, ensuring prolonged heat insulation. When the polycarbonate has an air chamber, the thermal insulation increases.

LIGHTNESS

Its low weight makes handling easier and means less load is placed on the structure.

FLAMMABILITY

Hardly flammable, does not spread fire.

FLEXIBILITY

Curved designs are possible, respecting a minimum curvature radius, therefore increasing the load capacity.

CHEMICAL BEHAVIOUR

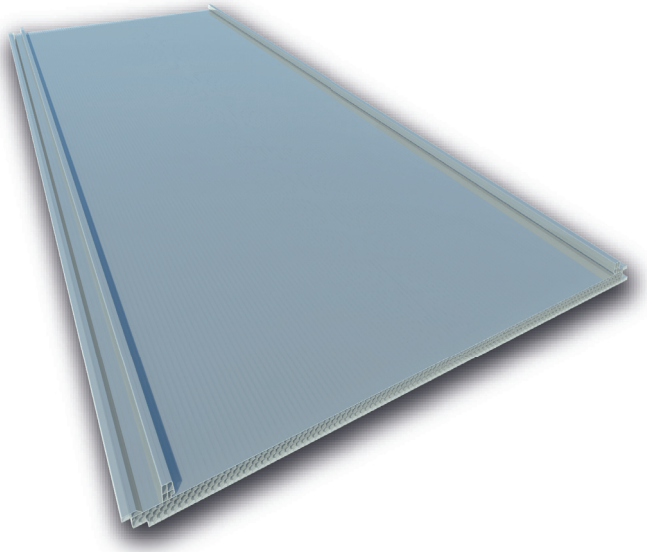
Polycarbonate is not subject to corrosion, and is not affected by a large number of chemicals.

TYPES OF SOLUTION

HONEYCOMB POLYCARBONATE
HIANSAPLUS
POLIMER
COMPACT POLYCARBONATE

HONEYCOMB POLYCARBONATE HEXAGONA

LIGHTING PANEL WITH FLASHING



COMPOSITION
Honeycomb polycarbonate

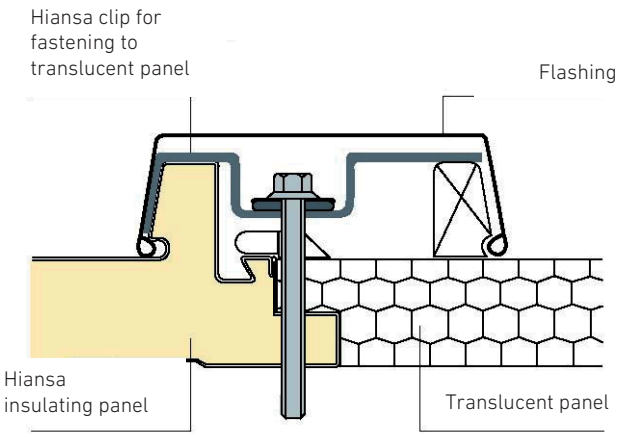
THICKNESS (mm)
30

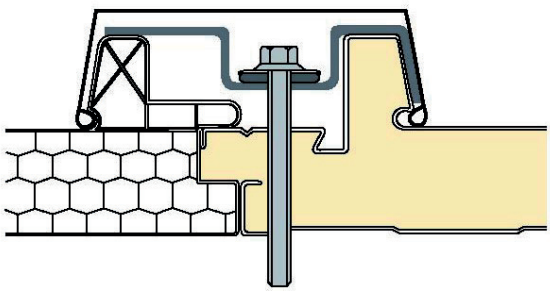
USEFUL WIDTH 1000 mm

USE
Roofs

CHARACTERISTICS

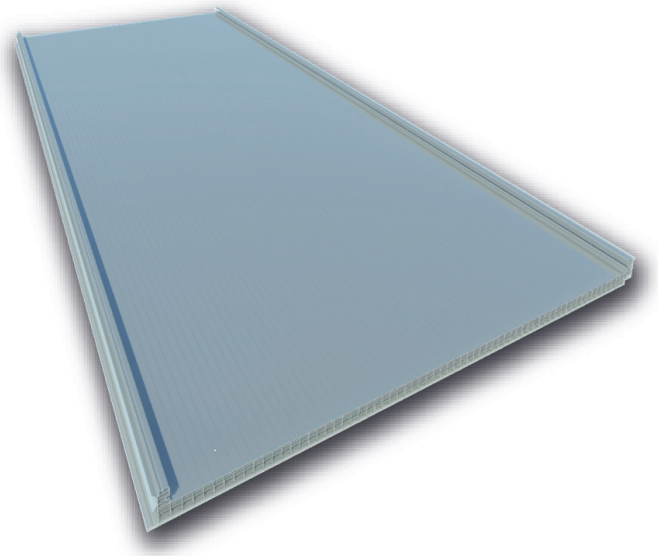
It is a honeycomb polycarbonate panel designed to fit perfectly with the sandwich panel. The sheet is 30 mm thick and its structure is formed by four levels of hexagonal cells (air chambers), which give it a high degree of thermal insulation.





HIANSAPLUS

LIGHTING PANEL WITH FLASHING



COMPOSITION
Honeycomb

THICKNESS (mm)
30

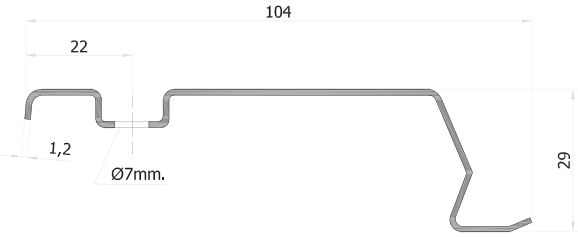
USEFUL WIDTH 1000

USE
Roofs

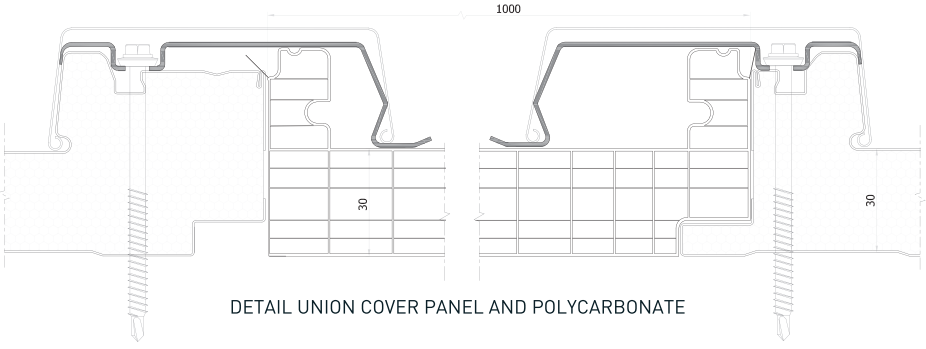
CHARACTERISTICS

It is a honeycomb polycarbonate panel created to meet lighting requirements for Hiansa roof panels with flashing, maintaining a high quality/price relationship. The securing system used ensures the correct placement of the flashings, while maintaining an attractive overall appearance. Due to its expansion characteristics, holes need to be made in the upper part of the flanges.

MAIN CHARACTERISTICS HIANSAPLUS 30mm	
Characteristic	**Value**
Vertical cell pass	15 mm
Horizontal Walls	6
Width useful plate	1.000 mm
Heel	no
Length (l) standard	7.500-10.000-12.000-13.500 mm
Length (l) to measure	to measure (from 150m2)
Solar control (G value)	Neutral: 68% - Opal: 59%
Transmission of light	Neutral: 67% - Opal: 39%
Thermal isolation	1,26 w/m2.K
Acoustic isolation	23 dB
Dilatation	0,065 mm/m ºC
UV protection	outer face coextrusion
Fire Classification	B-s1-d0 (UNE-EN: 13501-1:2007)
Ordinary temperature	-30 +120 ºC



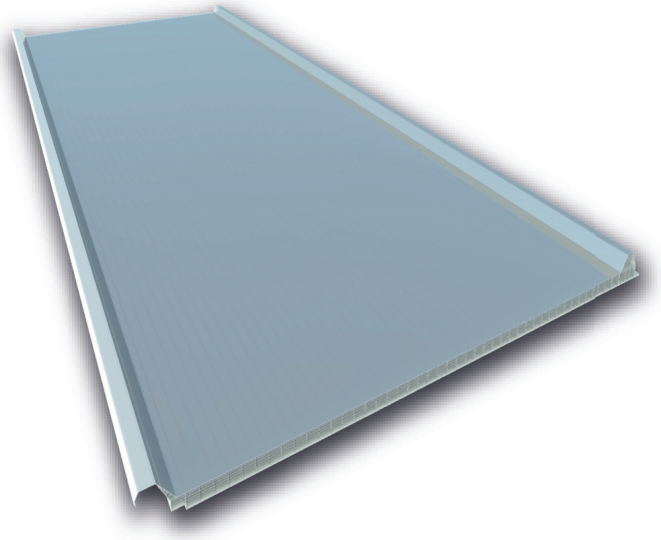
DETAIL GRAPA PANEL HIANSA 2G / 3GR



DETAIL UNION COVER PANEL AND POLYCARBONATE

POLIMER

LIGHTING PANEL WITHOUT FLASHING

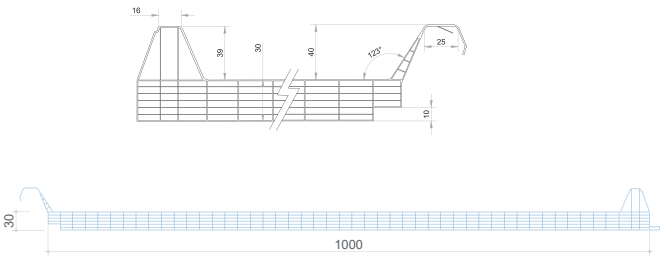


COMPOSITION
Honeycomb

THICKNESS (mm)
30

USEFUL WIDTH 1000

USE
Roofs

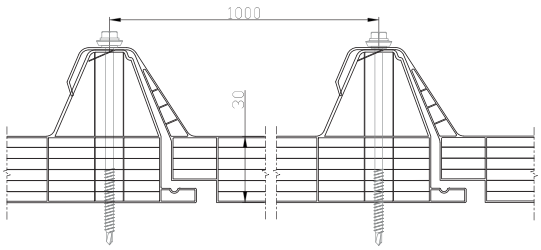


CHARACTERISTICS

It is a honeycomb polycarbonate panel that has been created to cover lighting needs on roofs, which has been combined with our sandwich panel without flashings model. This panel is 30 mm thick and is formed by 5 walls of rectangular cells (air chambers), which provide the product with excellent thermal insulation. Due to its expansion characteristics, holes need to be made in the upper part of the flanges, with diameters of between 5 to 7 mm larger than the bolts used.

MAIN CHARACTERISTICS POLIMER 30 ST	
Characteristic	**Value**
Vertical cell pass	24 mm
Horizontal Walls	7
Width useful plate	1.000 mm
Heel	no
Length (l) standard	13.500 mm
Length (l) to measure	to measure (from 200m2)
Solar control (G value)	Neutral: 60% - Opal: 54%
Transmission of light	Neutral: 59% - Opal: 32%
Thermal isolation	1,28 w/m2.K
Acoustic isolation	23 dB
Dilatation	0,065 mm/m ºC
UV protection	outer face coextrusion
Fire Classification	B-s1-d0 (UNE-EN: 13501-1:2007)
Ordinary temperature	-30 +120 ºC

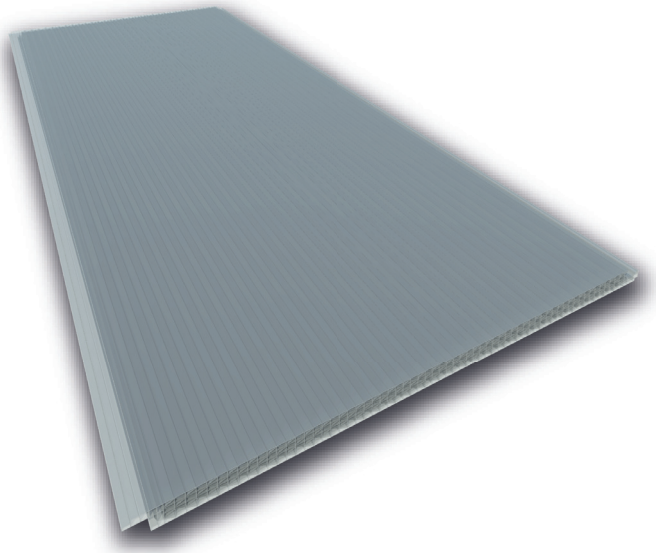
DETAIL POLICARBONATO DELIVERY - COVER PANEL HIANSA 3GR / 5GR ST



DETAIL POLICARBONATO DELIVERY - CONTINUOUS COVER - PANEL WITH HEEL

POLICLADD

LIGHTING PANEL WITHOUT FLASHING



COMPOSITION
Honeycomb polycarbonate

THICKNESSES mm (in.)
35
(1.38)

USEFUL WIDTH
1000 mm (39.37 in.)

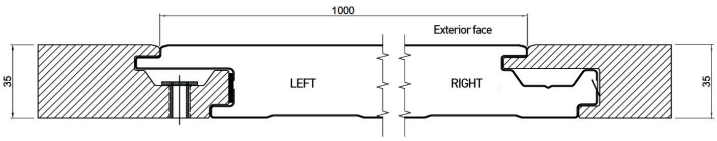
USE
Façades

CHARACTERISTICS

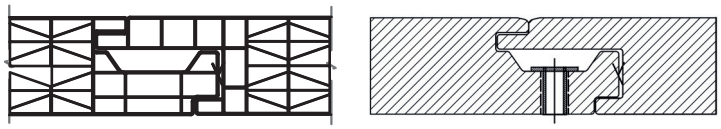
This is a honeycomb polycarbonate panel created to be installed on the façade. It can be mounted by means of the tongue-and-groove joint to our façade panel with hidden fixation or as a continuous skylight. It has a thickness of 35 mm and consists of a total of 9 walls of triangular cells (air chambers), providing the product with good thermal insulation and resistance to stress.

Due to its expansion characteristics, in order to secure the panels, holes need to be made in the securing area, with diameters of between 5 to 7 mm larger than the bolts used. In addition, a polyamide bushing system is used to avoid excessive pressure of the bolt on the polycarbonate.

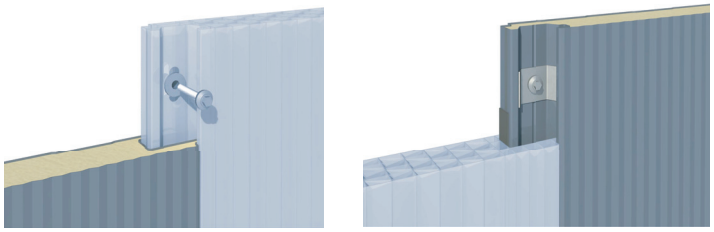
MAIN FEATURES POLIMER 30 ST	
Characteristic	Value
Vertical cell pitch	15 mm
Horizontal walls	9
Useful sheet width	1000 mm [±5]
Heel	Yes
Standard length (l)	13,500 mm
Customized length (l)	customized (from 200m2)
Solar control (G-value)	Neutral: 66% - Opal: 62%
Light transfer	Neutral: 65% - Opal: 36%
Thermal insulation	1.05 w/m2.K
Acoustic insulation	21 dB
Expansion	0.065 mm/m ºC
UV protection	coextrusion exterior face
Fire classification	B-s1-d0 (UNE-EN: 13501-1:2007)
Temperature for ordinary use	-30 +120 ºC



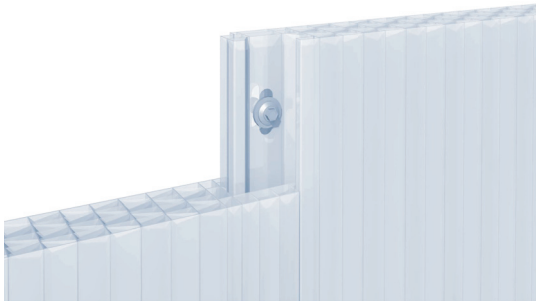
DETAIL PRESENTATION POLYCARBONATE - FAÇADE PANEL - HIDDEN FASTENING



DETAIL PRESENTATION BETWEEN POLYCARBONATE SHEETS - PA FASTENER BUSHING



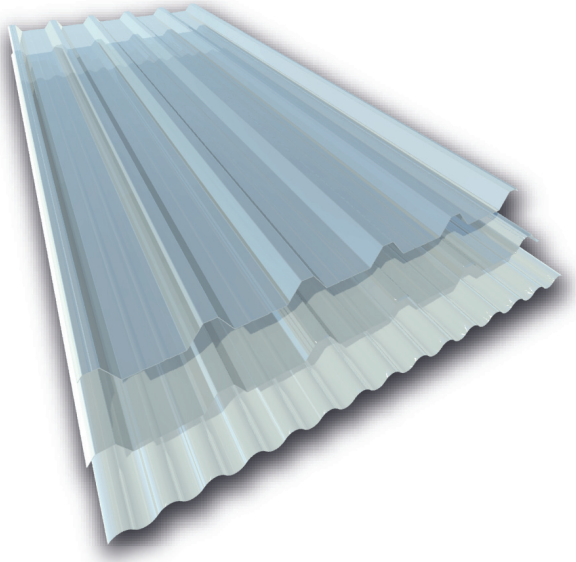
DETAIL PRESENTATION BETWEEN POLYCARBONATE SHEETS - METAL PANEL



DETAIL PRESENTATION BETWEEN CONTINUOUS POLYCARBONATE SHEETS

COMPACT POLYCARBONATE

SKYLIGHT



COMPOSITION
Compact polycarbonate

THICKNESS (mm)
1.0

AVAILABLE FOR
MO-18, MT-32, MT-42 and MT-52

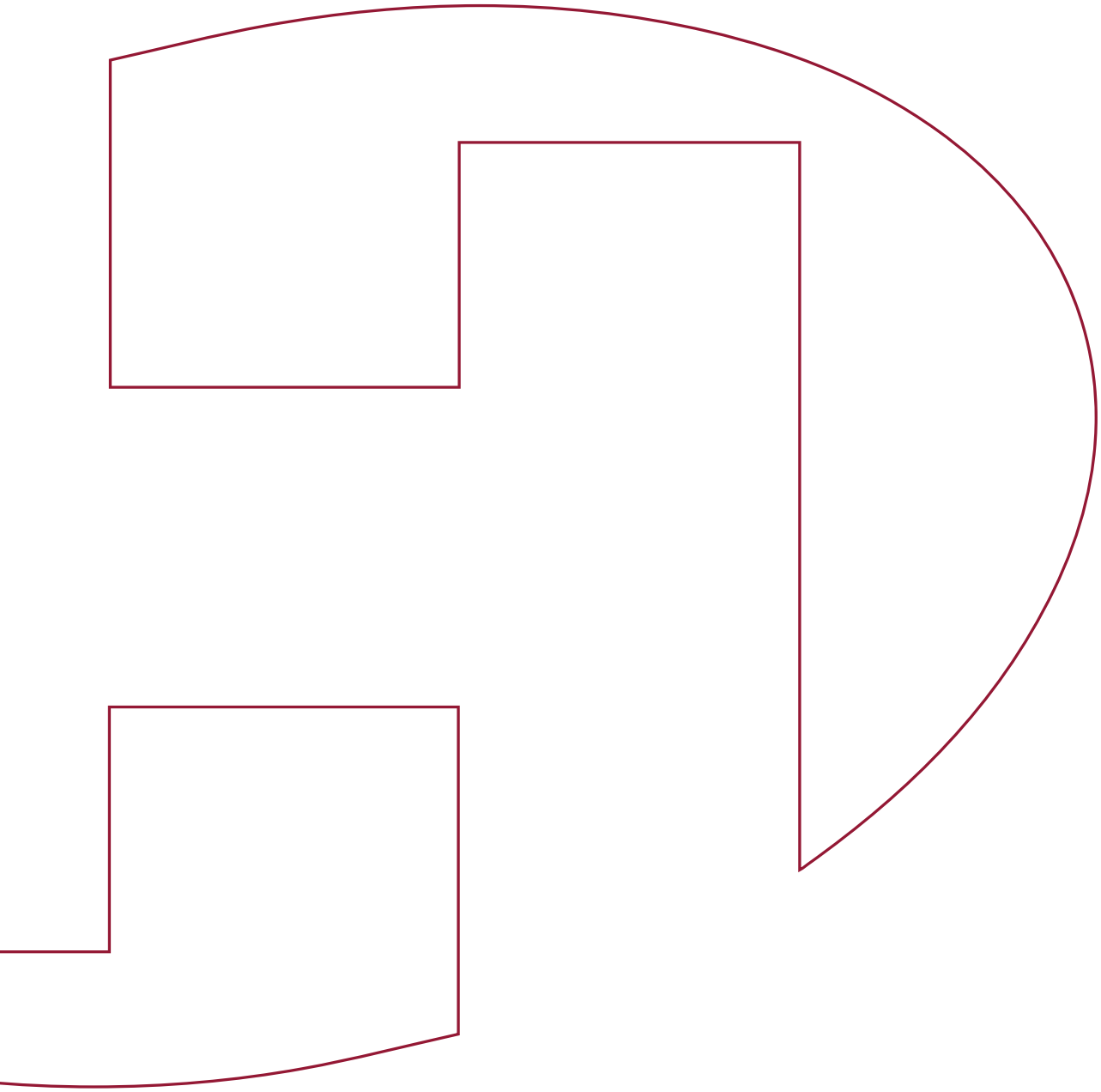
USE
Facades
Roofs

CURVABLE

CHARACTERISTICS

It is made to the same dimensions as the Hiansa MO-18, MT-32, MT-42 and MT-52 steel plates, thereby ensuring a perfect fit between the steel cladding sheet and the skylights. These products are manufactured in both flat and cold-moulded curved models (in accordance with client instructions and at the client's own liability) and their solar-radiation control properties (which are intrinsic to the sheet) provide excellent light transmittance and a high reflection level in terms of heat radiation. All this makes compact polycarbonate an ideal product for situations of extreme cold or heat.

The sheets can also be supplied with anti-condensation treatment, which is particularly suitable for building types characterised by the presence of marked interior condensation (in swimming pools for example).



PROFILED SHEETS

PROFILED SHEETS

DESCRIPTION OF SHEETS

Hiansa is a leading manufacturer of pre-formed sheets for roofs and facades, which are essential in industrial construction applications.

The advantages of pre-formed sheets are its economical results due to its light weight, mechanical strength, ease of transportation and handling, its economical assembly and the great aesthetic possibilities it presents, which in the case of Hiansa include a variety of finishes and coatings: galvanised, pre-painted (wide range of colours), zinc aluminium, etc.

CURVED POSSIBILITIES

- Minimum inside curvature radius 150 mm galvanised and pre-painted
- Thickness 0.6 mm to 1.2 mm
- Minimum distance between end/beginning of curve for sections longer than 2,000 mm:
  Initial end 0 mm
  Final end 200 mm
- Maximum length of sheet to be curved: 12,000 mm.

See curved profiles section.

PERFORATED POSSIBILITIES

The sheets can also be provided with perforations according to the assembly solutions used.

- 3 mm diameter
- 5 mm between centres
- 60° staggered

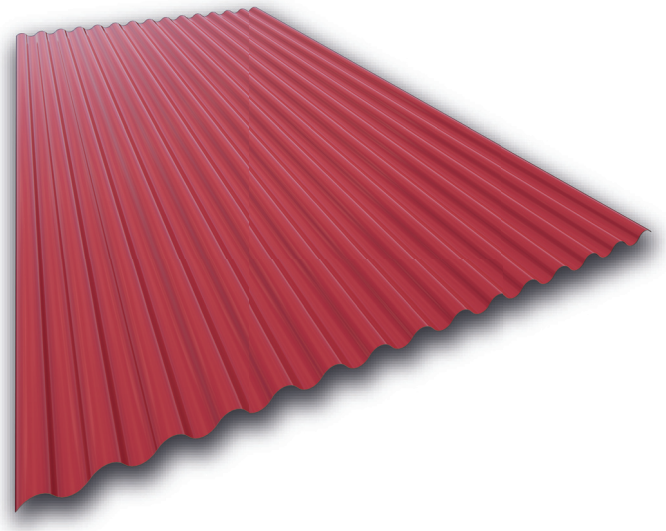
See perforated profiles section.

STRENGTH CALCULATIONS

All the calculations have been verified by the AICIA (Association of Research and Industrial Cooperation of Andalusia) ERM Material Elasticity and Strength Group, a subsection of the Higher Industrial Engineering School of the University of Seville.

MO-18 MINIONDA

MINIONDA PROFILED SHEET



FINISH
Pre-painted/Galvanised

THICKNESS (mm)
Up to 1.2

USEFUL WIDTH 1064 mm

USE
Facades
Roofs

PERFORABLE

mm	0,5	0,6
kg/m²	4,91	5,88

CHARACTERISTICS

TECHNICAL DATA				
(mm) e	(cm^4) I	(cm^3) W	(kp x m) M	(kp/m^2) P
0.5	1.705	1.948	27.272	4.906
0.6	2.046	2.325	32.550	5.887
0.7	2.387	2.697	37.758	6.868
0.8	2.728	3.065	42.910	7.850
0.9	3.069	3.429	48.006	8.831
1	3.410	3.789	53.046	9.812

A profile in corrugated sheet form, with a height of 18 mm and available in various finishes: galvanised, pre-painted, and aluzinc, with numerous thicknesses up to 1.2 mm.

Useful width measurements can be 836 mm, 1,064 mm and 1,292 mm, while length varies between 1000 mm and 14,000 mm. It may be supplied in other thicknesses, widths and lengths on request.

FORMS OF OVERLAP

1 wave overlap
Useful width { 836/880 mm. / 1.064/1.100 mm. / 1.292/1.330 mm.

1 ½ wave overlap
Useful width { 798/880 mm. / 1.000/1.100 mm. / 1.210/1.330 mm.

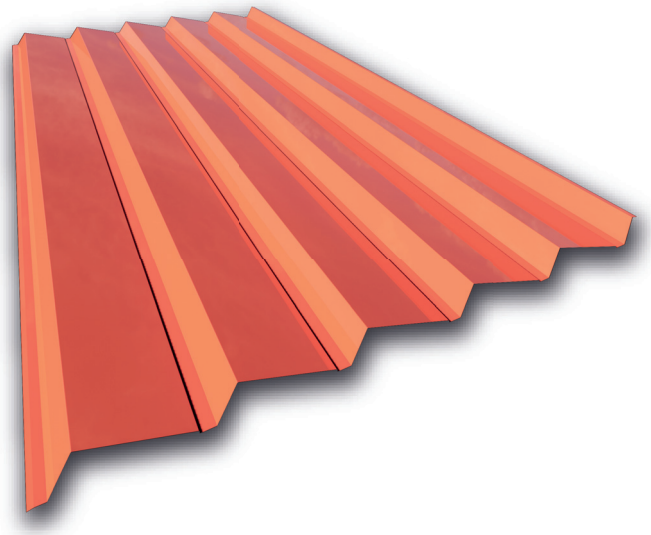
2 wave overlap
Useful width { 760/880 mm. / 950/1.100 mm. / 1.150/1.330 mm.

VALORES MÁXIMOS DE CARGA DE PRESIÓN Y DE SUCCIÓN (kp/m²) - **ACERO S220GD - LIMITE ELASTICO 220 N/mm²**

ALLOWABLE LOADS (kp/m²) ACCORDING TO DISTANCE BETWEEN PURLINS (m)								
e(mm)	1	1.25	1.50	1.75	2.00	2.25	2.50	2.75
0.5	272	173	120	88	67	53	42	35
	254	162	112	82	63	50	39	32
0.6	325	207	143	106	81	63	51	42
	303	194	134	99	75	59	47	39
0.7	377	241	167	122	93	73	60	50
	352	225	156	114	87	68	56	46
0.8	428	273	190	140	106	83	67	56
	400	255	177	130	99	78	63	52
0.9	480	306	212	156	120	93	76	62
	448	286	198	146	112	87	71	58
1	530	338	235	172	132	103	83	70
	496	316	219	161	123	97	78	65

MT-44 IBIZA

ARCHITECTURAL FACADES



FINISH
Pre-painted

THICKNESS (mm)
Up to 1.2

USEFUL WIDTH 1010 mm

USE
Facades

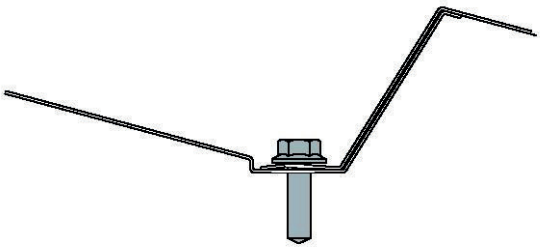
PERFORABLE

mm	0,6	0,7
kg/m²	5,83	6,8

CHARACTERISTICS

The Ibiza profile for architectural facades is an example of the developments that have taken place in the construction industry with respect to modern architecture, where practical and functional values are combined with the aesthetic results that different projects require. The Hiansa Ibiza profile has been specially designed for those projects in which visual impact is a fundamental factor in the overall design.

It can be applied in either horizontal or vertical arrangements, for industrial warehouses, commercial and service buildings and housing facades.



Detail of overlap and fixing

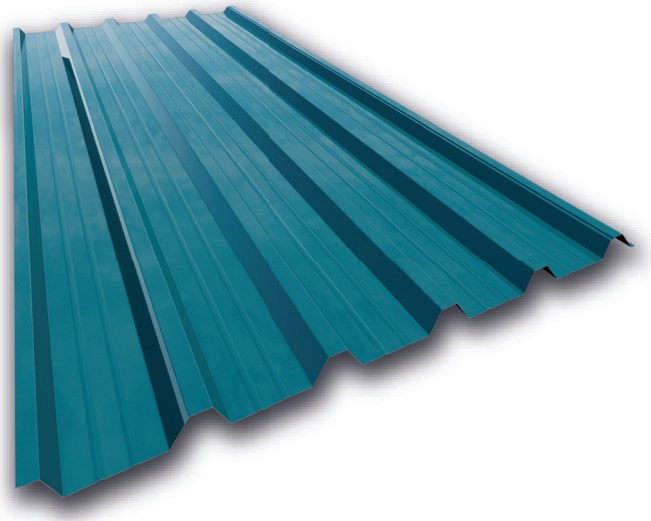
S220GD STEEL - ELASTIC LIMIT 220 N/mm²
MAXIMUM VALUES OF PRESSURE AND SUCTION LOADS (kp/m²)

FACADES

Panel Thickness		0.6			0.8			1.0		
Bend/Span		1/150	1/300	1/500	1/150	1/300	1/500	1/150	1/300	1/500
1 Opening	1.5	263/476	263/314	186/189	402/686	402/419	251/251	562/868	524/524	314/314
	2.0	148/265	133/133	80/80	226/354	177/177	106/106	316/442	221/221	133/133
	2.5	95/136	68/68	41/41	145/181	91/91	54/54	202/226	113/113	68/68
	3.0	66/79	39/39	24/24	100/105	52/52	31/31	131/131	65/65	39/39
2 Openings	1.5	373/263	373/263	373/263	562/402	562/402	562/402	746/562	746/562	746/562
	2.0	231/148	231/148	191/148	346/226	346/226	255/226	455/316	455/316	319/316
	2.5	158/95	158/95	98/95	235/145	218/145	131/131	272/202	272/202	163/163
	3.0	115/66	94/66	57/57	170/100	126/100	76/76	157/140	157/140	94/94
3 Openings	1.5	411/329	411/329	357/329	628/502	628/502	476/476	878/702	878/702	595/595
	2.0	231/185	231/185	151/151	353/282	335/282	201/201	419/395	419/395	251/251
	2.5	148/118	129/118	77/77	226/181	171/171	103/103	214/214	214/214	129/129
	3.0	103/82	74/74	45/45	157/126	99/99	60/60	124/124	124/124	40/58

MT-32 F

PROFILED SHEETS



FINISH
Pre-painted/Galvanised

THICKNESS (mm)
Up to 1.2

USEFUL WIDTH 1000 mm

USE
Facades

BENDABLE PERFORABLE

mm	0,5	0,6
kg/m²	4,91	5,89

CHARACTERISTICS

The MT-32 Hiansa sheet has a 32 mm high ribbed form with thicknesses up to 1.2 mm. Its useful width is 1,000 mm, with lengths of between 1,000 and 14,000 mm.
Other thicknesses and lengths may be supplied on request.

Galvanised, aluzinc and pre-painted finishes are offered in a variety of colours.

The sheets can also be provided with perforations according to the assembly solutions used, with 3 mm diameter holes, 5 mm centres and staggered at 60º.

FACADES

S220GD STEEL - ELASTIC LIMIT 220 N/mm²
ALLOWABLE LOADS (kp/m²) ACCORDING TO DISTANCE BETWEEN PURLINS (m)

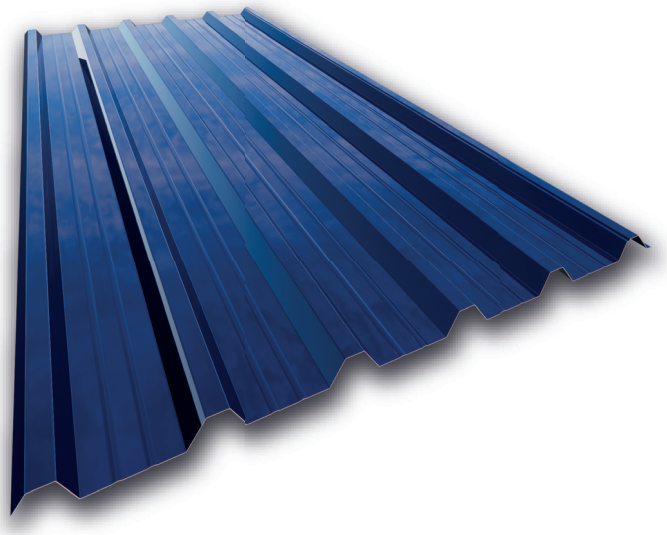
PRESSURE LOAD											1 OPENING	SUCTION LOAD										
3,00	2,80	2,60	2,40	2,20	2,00	1,80	1,60	1,40	1,20	1,00	e(mm)	1,00	1,20	1,40	1,60	1,80	2,00	2,20	2,40	2,60	2,80	3,00
16	21	29	39	54	75	106	155	222	305	444	0,50	416	188	212	157	110	80	60	46	36	29	23
19	26	36	48	65	91	129	188	267	367	533	0,60	526	365	268	197	142	100	75	58	45	36	29
22	31	41	56	77	106	151	220	311	428	622	0,70	635	441	323	236	165	120	90	69	54	43	35
26	35	48	64	88	122	173	253	356	489	711	0,80	725	503	369	270	189	138	103	79	62	49	40
33	44	60	81	111	154	218	319	444	611	888	1,00	903	627	460	337	236	172	129	99	78	62	50
39	54	72	98	134	186	263	385	532	731	1062	1,20	1081	750	550	405	284	207	155	119	93	74	60

PRESSURE LOAD											2 OPENINGS	SUCTION LOAD										
3,00	2,80	2,60	2,40	2,20	2,00	1,80	1,60	1,40	1,20	1,00	e(mm)	1,00	1,20	1,40	1,60	1,80	2,00	2,20	2,40	2,60	2,80	3,00
37	44	53	64	77	95	120	154	204	281	408	0,50	451	313	230	176	139	112	92	77	66	57	49
48	57	67	81	98	121	152	195	258	356	517	0,60	543	377	276	211	167	135	111	93	79	68	59
58	69	82	98	119	147	184	236	312	430	624	0,70	634	440	323	247	195	158	131	110	93	80	70
67	79	93	112	136	167	210	270	357	490	712	0,80	725	504	370	283	224	181	150	126	107	93	81
83	98	116	140	169	209	262	336	444	611	888	1,00	907	630	464	356	281	228	189	159	136	117	102
99	117	139	167	203	250	313	402	532	731	1062	1,20	1087	756	556	427	338	274	227	192	164	142	124

PRESSURE LOAD											3 OPENINGS	SUCTION LOAD										
3,00	2,80	2,60	2,40	2,20	2,00	1,80	1,60	1,40	1,20	1,00	e(mm)	1,00	1,20	1,40	1,60	1,80	2,00	2,20	2,40	2,60	2,80	3,00
38	48	63	82	99	121	152	195	257	353	512	0,50	565	392	287	220	173	140	114	88	69	55	45
46	59	76	100	126	154	193	247	326	447	648	0,60	679	471	346	264	209	169	139	110	86	69	56
54	69	90	117	152	187	233	298	394	540	783	0,70	792	549	403	308	243	197	162	131	103	82	67
62	79	103	135	173	213	266	341	449	617	894	0,80	904	627	461	352	278	225	185	150	118	94	76
78	100	130	170	216	265	332	424	560	768	1114	1,00	1129	784	575	440	347	281	232	188	148	118	96
94	121	157	205	259	317	397	508	670	919	1333	1,20	1352	938	688	526	415	336	277	226	177	142	115

MT-32

PROFILED SHEETS



FINISH
Pre-painted/Galvanised

THICKNESS (mm)
Up to 1.2

USEFUL WIDTH 1000 mm

USE
Roofs

BENDABLE PERFORABLE

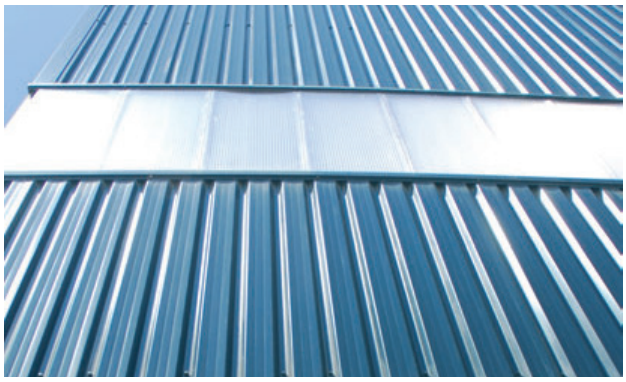
mm	0,5	0,6
kg/m²	4,91	5,89

CHARACTERISTICS

The MT-32 Hiansa sheet has a 32 mm high ribbed form with thicknesses up to 1.2 mm. Its useful width is 1,000 mm, with lengths of between 1,000 and 14,000 mm.
Other thicknesses and lengths may be supplied on request.

Galvanised, aluzinc and pre-painted finishes are offered in a variety of colours.

The sheets can also be provided with perforations according to the assembly solutions used, with 3 mm diameter holes, 5 mm centres and staggered at 60º.



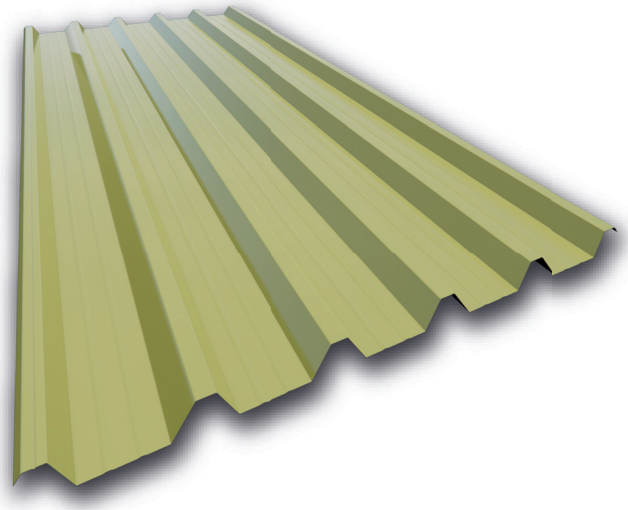
ROOFS - face "A"

S220GD STEEL - ELASTIC LIMIT 220 N/mm²
ALLOWABLE LOADS (kp/m2) ACCORDING TO DISTANCE BETWEEN PURLINS (m)

PRESSURE LOAD											1 OPENING	SUCTION LOAD										
3,00	2,80	2,60	2,40	2,20	2,00	1,80	1,60	1,40	1,20	1,00	e(mm)	1,00	1,20	1,40	1,60	1,80	2,00	2,20	2,40	2,60	2,80	3,00
20	25	32	42	56	76	107	153	209	286	413	0,50	453	318	235	168	119	88	67	53	43	35	29
25	32	41	53	71	95	133	192	264	361	523	0,60	549	383	282	204	145	107	82	64	52	42	35
30	38	49	64	85	115	160	231	319	437	631	0,70	340	446	329	239	170	125	96	75	60	50	41
34	44	56	73	97	132	183	264	364	498	720	0,80	731	510	376	275	195	144	110	86	69	57	48
43	55	70	92	122	165	229	330	454	621	898	1,00	913	636	470	346	246	181	138	109	87	72	60
51	66	84	110	146	198	275	397	544	743	1074	1,20	1093	762	562	417	296	219	167	131	105	86	72
PRESSURE LOAD											2 OPENINGS	SUCTION LOAD										
3,00	2,80	2,60	2,40	2,20	2,00	1,80	1,60	1,40	1,20	1,00	e(mm)	1,00	1,20	1,40	1,60	1,80	2,00	2,20	2,40	2,60	2,80	3,00
46	54	63	75	90	109	136	173	227	310	449	0,50	421	293	217	167	133	108	90	76	66	57	50
56	65	76	90	108	131	163	208	273	373	539	0,60	532	371	274	211	167	136	114	96	83	72	63
65	75	88	105	126	153	190	242	318	435	629	0,70	642	448	330	254	202	165	137	116	100	87	76
74	86	101	120	144	175	217	277	364	497	719	0,80	733	511	377	290	230	188	156	132	114	99	87
93	108	126	149	179	219	272	346	454	621	898	1,00	913	637	470	362	287	234	195	165	142	123	108
111	129	151	179	215	262	325	414	544	743	1074	1,20	1093	762	562	433	344	280	233	197	170	148	130
PRESSURE LOAD											3 OPENINGS	SUCTION LOAD										
3,00	2,80	2,60	2,40	2,20	2,00	1,80	1,60	1,40	1,20	1,00	e(mm)	1,00	1,20	1,40	1,60	1,80	2,00	2,20	2,40	2,60	2,80	3,00
41	51	65	84	111	138	171	217	285	389	562	0,50	525	366	270	207	165	134	112	95	76	62	51
51	64	82	105	136	165	205	261	343	468	675	0,60	664	462	341	262	208	169	141	116	93	75	62
62	77	98	126	158	193	239	304	399	545	788	0,70	801	558	411	316	251	204	170	136	109	88	73
71	88	112	145	181	220	273	348	456	623	900	0,80	914	637	470	361	287	233	194	157	125	101	84
88	111	140	181	226	275	341	434	570	778	1124	1,00	1140	794	585	450	357	291	242	197	157	128	105
106	133	169	217	271	329	409	520	682	931	1345	1,20	1364	950	700	538	427	348	289	238	189	154	127

MT-42

PROFILED SHEETS



FINISH
Pre-painted/Galvanised

THICKNESS (mm)
Up to 1.2

USEFUL WIDTH 1000 mm

USE
Facades
Roofs
Deck Roofs

BENDABLE PERFORABLE

mm	0,5	0,6	0,7	0,8
kg/m²	4,91	5,89	6,87	7,85

CHARACTERISTICS

The MT-42 Hiansa sheet has a 42 mm high ribbed form with thicknesses up to 1.2 mm. Its useful width is 1,000 mm, with lengths of between 1,000 and 14,000 mm.
Other thicknesses and lengths may be supplied on request.

Galvanised, aluzinc and pre-painted finishes are offered in a variety of colours.
The sheets can also be provided with perforations according to the assembly solutions used, with 3 mm diameter holes, 5 mm centres and staggered at 60º.

S220GD STEEL - ELASTIC LIMIT 220 N/mm²

ROOFS - face "A"

ALLOWABLE LOADS (kp/m2) ACCORDING TO DISTANCE BETWEEN PURLINS (m)

PRESSURE LOAD											1 OPENING						SUCTION LOAD													
4,00	3,80	3,60	3,40	3,20	3,00	2,80	2,60	2,40	2,20	2,00	1,80	1,60	1,40	1,20	1,00	e(mm)	1,00	1,20	1,40	1,60	1,80	2,00	2,20	2,40	2,60	2,80	3,00	3,20	3,40	3,60	3,80	4,00
11	13	16	20	25	32	40	51	66	87	111	138	175	230	315	455	0,50	643	447	330	253	201	155	117	91	73	59	49	41	35	30	26	23
17	21	26	32	39	49	61	78	101	132	178	230	292	383	523	755	0,60	772	537	396	304	242	186	141	110	88	71	59	50	42	36	32	28
21	25	31	38	47	58	73	92	119	156	210	272	346	454	619	894	0,70	901	627	462	355	282	219	166	129	103	84	69	58	50	43	37	33
24	29	35	43	53	66	83	105	136	179	240	311	395	518	707	1021	0,80	1030	717	529	406	322	251	191	148	118	96	80	67	57	49	43	38
30	36	44	54	67	83	104	132	170	224	301	387	493	646	882	1274	1,00	1288	897	661	508	403	317	240	187	149	121	100	84	72	62	54	48
36	43	53	65	80	99	125	158	204	269	361	464	590	773	1056	1525	1,20	1545	1076	793	609	484	383	290	226	180	146	121	102	87	75	65	57

PRESSURE LOAD											2 OPENINGS						SUCTION LOAD													
4,00	3,80	3,60	3,40	3,20	3,00	2,80	2,60	2,40	2,20	2,00	1,80	1,60	1,40	1,20	1,00	e(mm)	1,00	1,20	1,40	1,60	1,80	2,00	2,20	2,40	2,60	2,80	3,00	3,20	3,40	3,60	3,80	4,00
32	38	45	51	58	67	77	90	107	128	156	193	245	322	439	634	0,50	463	323	238	183	146	119	99	84	72	63	55	49	44	39	36	33
43	48	54	61	69	80	92	108	127	152	185	230	292	383	523	755	0,60	772	537	396	304	242	197	163	138	118	103	90	80	71	64	58	53
51	57	64	72	82	94	109	127	151	180	219	272	346	454	619	894	0,70	901	627	462	355	282	229	191	161	138	120	105	93	83	75	68	62
58	65	73	82	94	108	125	146	172	206	250	311	395	518	707	1021	0,80	1030	717	529	406	322	262	218	184	158	137	120	106	95	85	77	70
72	81	91	103	117	134	155	181	214	257	312	387	493	646	882	1274	1,00	1288	897	661	508	403	328	273	230	197	171	150	133	119	107	97	88
86	97	109	123	140	161	186	217	257	307	374	464	590	773	1056	1525	1,20	1545	1076	793	609	484	394	327	276	237	206	180	160	143	128	116	106

PRESSURE LOAD											3 OPENINGS						SUCTION LOAD													
4,00	3,80	3,60	3,40	3,20	3,00	2,80	2,60	2,40	2,20	2,00	1,80	1,60	1,40	1,20	1,00	e(mm)	1,00	1,20	1,40	1,60	1,80	2,00	2,20	2,40	2,60	2,80	3,00	3,20	3,40	3,60	3,80	4,00
24	29	35	42	52	64	79	100	120	144	175	217	276	362	494	713	0,50	578	402	297	228	181	147	123	104	89	77	68	60	54	48	44	40
38	45	54	65	79	97	117	137	162	193	235	291	370	484	661	954	0,60	955	665	490	376	298	242	201	170	145	126	107	89	75	64	55	48
45	53	64	77	93	115	137	160	189	225	274	340	431	565	771	1113	0,70	1131	787	580	445	353	287	238	201	172	149	125	104	88	75	65	56
51	61	73	88	107	131	157	183	216	258	313	388	493	646	882	1273	0,80	1291	899	662	508	403	328	272	230	197	170	144	120	101	86	74	65
64	76	91	110	134	164	196	229	270	322	392	486	617	808	1103	1592	1,00	1610	1121	826	634	503	409	339	286	245	213	181	151	127	109	94	82
77	92	110	132	161	197	235	274	323	387	470	582	740	969	1323	1909	1,20	1928	1342	989	759	602	489	406	343	294	254	219	182	154	131	113	99

FACADES

ALLOWABLE LOADS (kp/m2) ACCORDING TO DISTANCE BETWEEN PURLINS (m)

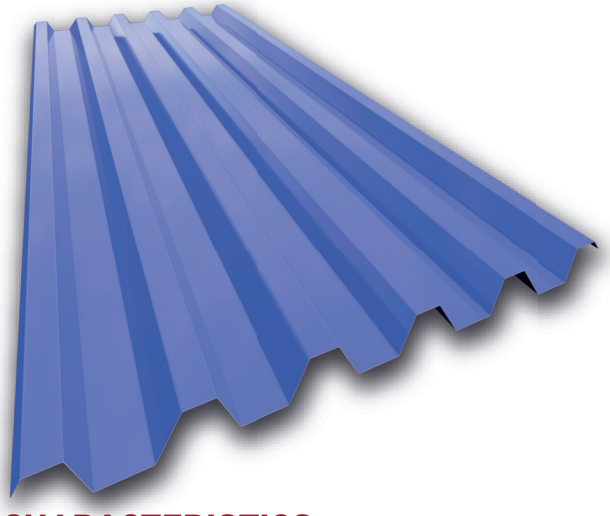
PRESSURE LOAD											1 OPENING						SUCTION LOAD													
4,00	3,80	3,60	3,40	3,20	3,00	2,80	2,60	2,40	2,20	2,00	1,80	1,60	1,40	1,20	1,00	e(mm)	1,00	1,20	1,40	1,60	1,80	2,00	2,20	2,40	2,60	2,80	3,00	3,20	3,40	3,60	3,80	4,00
9	12	16	21	27	35	45	59	77	103	141	188	240	317	434	629	0,50	458	318	233	178	141	114	91	70	55	44	36	29	24	20	17	15
11	15	20	25	33	42	55	71	93	125	170	226	289	380	522	756	0,60	759	527	387	296	234	182	137	105	83	66	54	44	37	31	26	22
13	18	23	30	39	50	64	83	110	146	199	264	337	444	609	882	0,70	899	624	458	350	277	216	162	125	98	78	63	52	43	36	31	26
15	20	27	34	44	57	74	96	126	168	229	301	385	508	696	1009	0,80	1026	712	523	400	316	247	185	142	112	89	73	60	50	42	35	30
20	26	34	44	56	72	93	121	159	212	289	377	482	635	871	1262	1,00	1280	888	652	499	394	309	232	178	140	112	91	75	62	52	44	38
24	31	41	53	68	87	113	146	192	257	349	452	578	761	1044	1513	1,20	1533	1064	781	597	472	371	278	214	168	134	109	90	75	63	53	45

PRESSURE LOAD											2 OPENINGS						SUCTION LOAD													
4,00	3,80	3,60	3,40	3,20	3,00	2,80	2,60	2,40	2,20	2,00	1,80	1,60	1,40	1,20	1,00	e(mm)	1,00	1,20	1,40	1,60	1,80	2,00	2,20	2,40	2,60	2,80	3,00	3,20	3,40	3,60	3,80	4,00
20	23	26	31	36	42	50	59	71	86	106	133	170	225	310	450	0,50	638	443	325	249	196	159	131	110	94	81	70	61	54	48	42	36
37	42	48	56	64	74	87	103	122	148	181	226	289	380	522	756	0,60	759	527	387	296	234	189	156	131	111	96	83	73	65	58	52	46
43	49	56	65	75	87	102	120	143	172	211	264	337	444	609	882	0,70	899	624	458	350	277	224	185	155	132	114	99	87	77	68	61	55
50	56	65	74	85	99	116	137	163	197	241	301	385	508	696	1009	0,80	1026	712	523	400	316	255	211	177	151	130	113	99	87	78	70	63
62	71	81	93	107	124	145	171	204	246	302	377	482	635	871	1262	1,00	1280	888	652	499	394	319	263	221	188	162	141	123	109	97	87	78
74	85	97	111	128	149	174	205	245	295	362	452	578	761	1044	1513	1,20	1533	1064	781	597	472	382	315	264	225	194	168	148	131	116	104	94

PRESSURE LOAD											3 OPENINGS						SUCTION LOAD													
4,00	3,80	3,60	3,40	3,20	3,00	2,80	2,60	2,40	2,20	2,00	1,80	1,60	1,40	1,20	1,00	e(mm)	1,00	1,20	1,40	1,60	1,80	2,00	2,20	2,40	2,60	2,80	3,00	3,20	3,40	3,60	3,80	4,00
26	31	35	41	47	55	64	76	91	110	134	168	215	284	389	565	0,50	716	497	365	279	220	178	147	124	104	83	68	56	46	39	33	28
31	38	47	58	72	90	110	130	154	186	227	282	360	474	649	940	0,60	957	664	488	373	295	239	197	165	141	121	102	84	70	59	50	43
37	45	55	68	85	106	131	154	183	220	269	335	427	561	769	1113	0,70	1117	776	570	436	344	278	230	193	164	141	120	99	83	69	59	50
42	52	64	79	97	121	149	176	209	251	307	382	487	641	878	1270	0,80	1278	887	651	498	393	318	263	221	188	162	138	113	94	79	67	58
54	66	81	99	123	153	186	219	260	313	382	476	608	799	1095	1584	1,00	1598	1109	815	623	492	398	329	276	235	202	172	142	118	99	84	72
65	80	98	120	149	185	223	262	311	375	458	570	728	957	1311	1897	1,20	1916	1330	977	747	590	477	394	331	282	242	207	170	142	119	101	87

MT-52

PROFILED SHEETS



FINISH
Pre-painted/Galvanised

THICKNESS (mm)
Up to 1.2

USEFUL WIDTH 895 mm

USE
Facades
Roofs
Deck Roofs

BENDABLE PERFORABLE

mm	0,6	0,7	0,8
kg/m²	6,58	7,68	8,77

CHARACTERISTICS

It has a 52 mm high ribbed form with thicknesses up to 1.2 mm. Its useful width is 895 mm, with lengths of between 1,000 mm and 14,000 mm. It may be supplied in other thicknesses, widths and lengths on request.

Galvanised, aluzinc and pre-painted finishes are offered-in a variety of colours.
The sheets can also be provided with perforations according to the assembly solutions used, with 3 mm diameter holes, 5 mm centres and staggered at 60º.

S220GD STEEL - ELASTIC LIMIT 220 N/mm²

ALLOWABLE LOADS (kp/m2) ACCORDING TO DISTANCE BETWEEN PURLINS (m)

ROOFS

PRESSURE LOAD											1 OPENING						SUCTION LOAD														
4,00	3,80	3,60	3,40	3,20	3,00	2,80	2,60	2,40	2,20	2,00	1,80	1,60	1,40	1,20	1,00	e(mm)	1,00	1,20	1,40	1,60	1,80	2,00	2,20	2,40	2,60	2,80	3,00	3,20	3,40	3,60	3,80	4,00
21	56	31	38	46	57	72	91	117	144	175	217	276	362	495	715	0,50	864	602	443	340	270	219	180	140	111	90	74	62	52	45	39	34
30	36	44	53	65	80	99	126	161	211	268	332	422	552	754	1088	0,60	1114	775	571	438	347	282	219	170	135	109	90	75	64	55	47	41
37	44	53	64	78	96	120	152	195	255	330	409	519	680	927	1338	0,70	1371	954	703	539	427	343	260	201	160	129	107	89	75	65	56	49
43	52	63	76	92	114	142	179	230	301	395	489	621	813	1110	1601	0,80	1673	1164	857	658	521	400	302	235	186	151	124	104	88	75	65	57
58	69	83	100	122	150	187	236	302	395	529	658	835	1094	1492	2152	1,00	2176	1514	1114	855	678	516	390	303	240	194	160	134	113	97	84	73
72	86	103	124	151	186	231	292	374	489	655	826	1048	1372	1871	2699	1,20	2659	1849	1361	1045	828	642	485	377	299	242	199	166	140	120	104	91
PRESSURE LOAD											2 OPENINGS						SUCTION LOAD														
4,00	3,80	3,60	3,40	3,20	3,00	2,80	2,60	2,40	2,20	2,00	1,80	1,60	1,40	1,20	1,00	e(mm)	1,00	1,20	1,40	1,60	1,80	2,00	2,20	2,40	2,60	2,80	3,00	3,20	3,40	3,60	3,80	4,00
49	55	62	70	80	91	105	123	145	173	211	261	331	434	593	856	0,50	723	504	371	285	226	184	153	129	111	96	84	75	67	60	54	49
64	71	80	91	103	118	136	159	187	224	272	337	428	560	764	1103	0,60	1098	764	563	432	343	279	231	195	167	145	127	112	100	90	81	74
79	88	99	112	127	145	168	196	231	276	335	415	527	690	942	1359	0,70	1351	940	392	531	421	342	284	240	205	178	156	138	122	110	99	90
97	108	122	137	156	178	205	239	282	337	410	507	644	843	1150	1659	0,80	1615	1124	828	635	504	409	339	286	245	212	186	164	146	131	118	108
127	141	158	179	203	232	268	312	367	439	533	660	838	1097	1496	2158	1,00	2170	1510	1112	853	676	549	455	384	329	285	249	220	196	176	159	144
155	173	194	218	248	284	327	381	449	536	651	806	1024	1340	1828	2637	1,20	2720	1892	1393	1069	847	688	570	481	411	356	312	275	245	220	198	180
PRESSURE LOAD											3 OPENINGS						SUCTION LOAD														
4,00	3,80	3,60	3,40	3,20	3,00	2,80	2,60	2,40	2,20	2,00	1,80	1,60	1,40	1,20	1,00	e(mm)	1,00	1,20	1,40	1,60	1,80	2,00	2,20	2,40	2,60	2,80	3,00	3,20	3,40	3,60	3,80	4,00
45	53	63	76	92	113	133	155	182	218	264	327	415	544	742	1070	0,50	903	629	463	355	282	229	190	160	137	119	104	92	82	74	67	60
62	74	88	105	127	149	171	200	235	281	341	422	536	701	957	1380	0,60	1372	954	702	539	427	347	288	243	207	180	157	137	115	98	84	73
75	89	106	127	154	183	211	246	290	346	420	520	660	864	1179	1700	0,70	1687	1173	864	663	525	426	353	298	255	221	193	162	136	116	99	86
89	105	125	150	181	222	259	301	355	423	514	636	807	1056	1439	2076	0,80	2017	1403	1033	792	627	510	422	356	304	263	227	189	159	135	116	100
117	139	165	197	239	292	337	392	461	551	668	827	1049	1373	1872	2700	1,00	2710	1885	1387	1064	843	684	567	478	408	353	293	243	205	174	149	129
146	172	204	245	296	357	411	479	564	673	817	1011	1282	1678	2288	3299	1,20	3397	2362	1739	1334	1056	857	710	599	512	443	364	302	254	216	185	161

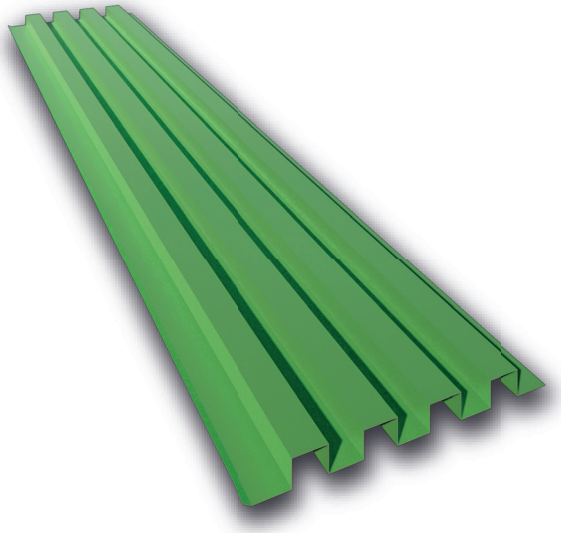
ALLOWABLE LOADS (kp/m2) ACCORDING TO DISTANCE BETWEEN PURLINS (m)

FACADES

PRESSURE LOAD											1 OPENING						SUCTION LOAD														
4,00	3,80	3,60	3,40	3,20	3,00	2,80	2,60	2,40	2,20	2,00	1,80	1,60	1,40	1,20	1,00	e(mm)	1,00	1,20	1,40	1,60	1,80	2,00	2,20	2,40	2,60	2,80	3,00	3,20	3,40	3,60	3,80	4,00
19	24	30	38	47	59	75	96	125	166	206	256	327	429	588	851	0,50	718	499	366	280	221	179	148	121	96	76	62	51	43	36	31	26
24	30	37	46	58	72	92	118	153	202	266	331	422	554	758	1097	0,60	1092	758	557	426	337	273	217	167	131	105	86	70	59	49	42	36
28	35	44	55	68	86	109	139	181	239	322	408	520	683	935	1352	0,70	1344	933	685	524	414	335	262	202	159	127	103	85	71	60	51	44
33	41	51	64	80	100	127	163	211	279	376	499	636	835	1142	1651	0,80	1607	1116	820	627	495	401	308	238	187	150	122	100	84	70	60	51
44	54	67	83	104	130	165	211	273	361	487	650	828	1087	1486	2148	1,00	2160	1500	1102	843	666	539	405	312	245	196	160	131	110	92	78	67
55	68	84	105	130	163	206	263	341	450	607	795	1012	1328	1816	2625	1,20	2708	1880	1381	1057	835	667	501	386	303	243	197	163	136	114	97	83
PRESSURE LOAD											2 OPENINGS						SUCTION LOAD														
4,00	3,80	3,60	3,40	3,20	3,00	2,80	2,60	2,40	2,20	2,00	1,80	1,60	1,40	1,20	1,00	e(mm)	1,00	1,20	1,40	1,60	1,80	2,00	2,20	2,40	2,60	2,80	3,00	3,20	3,40	3,60	3,80	4,00
36	40	46	53	61	71	82	97	115	139	170	213	271	357	490	710	0,50	859	597	438	335	265	214	177	149	127	109	95	83	74	66	59	53
57	64	73	83	95	110	128	150	179	215	262	326	416	546	748	1082	0,60	1108	769	865	432	341	276	228	192	163	141	122	108	95	85	76	69
71	80	91	103	118	136	158	186	220	265	323	402	512	673	921	1331	0,70	1364	947	696	532	420	340	281	236	201	173	151	133	117	105	94	85
86	96	109	124	142	164	190	223	264	317	387	481	613	805	1102	1593	0,80	1665	1156	849	650	513	416	343	288	246	212	184	162	143	128	115	103
116	131	148	168	192	222	257	301	356	428	522	648	825	1084	1482	2143	1,00	2166	1504	1104	845	668	541	447	375	319	275	240	210	186	166	149	134
147	165	187	212	242	278	323	378	448	537	655	814	1036	1360	1859	2687	1,20	2646	1837	1349	1033	816	661	546	458	390	336	293	257	228	203	182	164
PRESSURE LOAD											3 OPENINGS						SUCTION LOAD														
4,00	3,80	3,60	3,40	3,20	3,00	2,80	2,60	2,40	2,20	2,00	1,80	1,60	1,40	1,20	1,00	e(mm)	1,00	1,20	1,40	1,60	1,80	2,00	2,20	2,40	2,60	2,80	3,00	3,20	3,40	3,60	3,80	4,00
45	53	60	68	78	90	105	124	147	176	215	268	342	449	615	889	0,50	1074	746	548	419	331	268	222	186	158	137	117	97	81	68	58	50
55	66	80	97	119	141	163	191	226	271	330	410	522	686	938	1355	0,60	1385	961	706	540	427	346	286	240	204	176	153	133	111	94	79	68
66	79	95	115	141	174	201	235	279	334	407	506	643	844	1154	1667	0,70	1705	1184	870	666	526	426	352	295	252	217	189	161	134	113	96	82
77	92	111	135	165	204	241	282	334	400	488	605	770	1011	1381	1995	0,80	2082	1446	1062	813	642	530	429	361	307	265	230	189	158	133	113	97
100	120	144	175	214	264	326	381	450	539	657	815	1037	1360	1857	2952	1,00	2707	1880	1381	1057	835	676	558	469	400	344	300	248	207	174	148	127
125	150	180	219	267	329	409	478	565	677	824	1023	1300	1705	2329	3364	1,20	3308	2297	1687	1291	1020	826	682	573	488	421	366	307	256	216	183	157

MT-30 MENORCA

PROFILED FAÇADE SHEET



RAW MATERIAL
Steel

FINISH
Pre-painted/Galvanized

USEFUL WIDTH
325 mm (12.80 in.)

DRILLABLE
R3T5 standard
(consult other drillable panels)

THICKNESSES mm (in.)
Up to 1.0
(0.039)

USE
Façades / False roof

THICKNESS mm (in.)				
0.50 (0.019)	0.60 (0.023)	0.70 (0.027)	0.80 (0.031)	1.00 (0.039)
7.45	9.84	10.43	11.92	14.90
Weight (kg/m²)				

DRILLABLE

CHARACTERISTICS

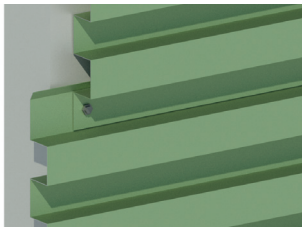
At Hiansa, we offer a new concept for dressing the façades of buildings, solving the most creative interior cladding or hanging as a false ceiling. This new line of uniquely designed profiles offers a variety of possibilities for finishing and is able to adapt seamlessly to the requirements and specifics of each project.

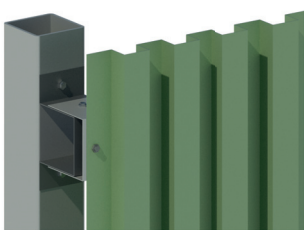
The profile Hiansa - Menorca has a length of up to 6.00 m and is manufactured in a useful width of 325 mm. With a nerve height of 30 mm and its square shape, it offers an amazing symmetry on the façade that results in a wall that always maintains a regular and balanced visual effect. Its design, with a discreet fit between each piece and with the fixing system seen on a substructure that is adjustable in depth, can be installed both vertically and horizontally, thus adapting to the most demanding conditions to create a wall with a high-quality finish.

Maximum distance between sub-frameworks (A) and omega single-point support pieces (B) from 1500 mm to 1750 mm

TECHNICAL SPECIFICATIONS

Geometric Specifications				
Characteristic	Value	Units	Tolerance / Standard	
Profile thickness (h)	30 (1.18)	mm (in.)	±1.5	EN 508-1
Thickness of stiffeners	0	mm	+3/-1	EN 508-1
Wave Pitch	40	mm	±3.0	EN 508-1
Width of the ridge and valley	40/40	mm	+4/-1	EN 508-1
Useful width (w)	325 (12.80)	mm (in.)	(±0.1 • h) and ≤15	EN 508-1
Bending radius (r)	3	mm	±2.0	EN 508-1
Length (l)	1250 (49.21) to 6000 (236.22)	mm (in.)	+20/-5	EN 508-1

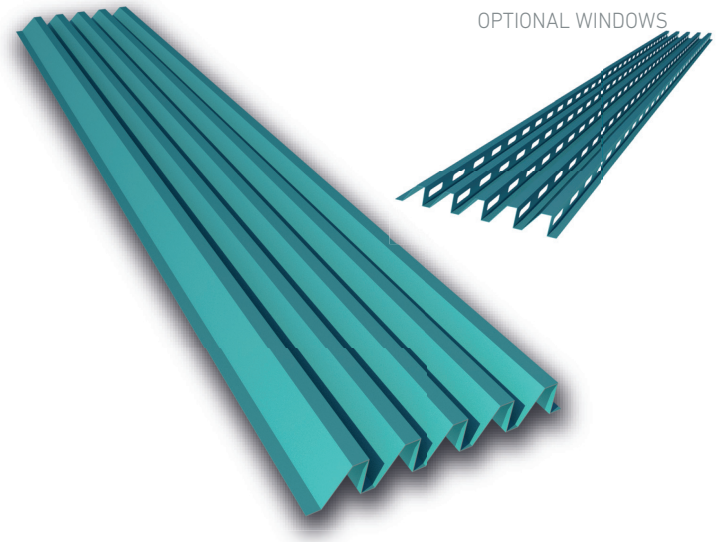




Features of the Profile				
Characteristic	Value	Units	Tolerance / Standard	
Deviation from straightness	≤ to the tolerance	mm	±2/ml (max.10)	EN 508-1
Deviation from quadrature	≤ to the tolerance	mm	≤ 0.005*w	EN 508-1
Deviation of the side overlap	≤ to the tolerance	mm	±2 s/500 mm	EN 508-1
Radius and angles of curvature	--	mm	--	EN 508-1
Sheet thickness	0.60 to 1.00	mm	UNE 10143	
Type of steel	S220GD to S320GD		UNE 10346	
Changes in measurements	12 x 10^{-6}K		UNE 14782	
Water resistance	Pass		UNE 14782	
Hazardous substance emissions	No emissions			
Behavior against fire	Broof (t1)		RD 110/2008	
Galvanized coating	UNE 10346			
Pre-painted coating	UNE 10169			
Fire resistance	Class A1			

MT-35 FORMENTERA

PROFILED FAÇADE SHEET



RAW MATERIAL
Steel

FINISH
Pre-painted/Galvanized

USEFUL WIDTH
314 mm (12.36 in.)

DRILLABLE
R3T5 standard
(consult other drillable panels)

THICKNESSES mm (in.)
Up to 0.8
(0.031)

USE
Façades / False roof

THICKNESS mm (in.)			
0.50 (0.019)	0.60 (0.023)	0.70 (0.027)	0.80 (0.031)
7.78	9.33	10.89	12.44
Weight (kg/m²)			

DRILLABLE

CHARACTERISTICS

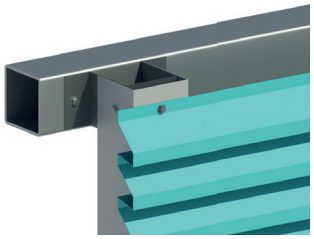
At Hiansa, we offer a new concept for dressing the façades of buildings, solving the most creative interior cladding or hanging as a false ceiling. This new line of uniquely designed profiles offers a variety of possibilities for finishing and is able to adapt seamlessly to the requirements and specifics of each project.

Hiansa's profile Formentera has a length of up to 6.00 m (19.69 ft) and is manufactured in a useful width of 314 mm (12.36 in.). With a nerve height of 35 mm (1.38 in.) and its sloped trapezoidal shape, it offers an appearance similar to sea waves or conventional ventilation grates, but with continuous plate, which ensures its tightness, while maintaining a beautiful aesthetic. Its design, with a discreet fit between each piece and with the fixing system seen on a substructure that is adjustable in depth, can be installed both vertically and horizontally, thus adapting to the most demanding conditions to create a wall with a high-quality finish.

Maximum distance between sub-frameworks (A) and omega single-point support pieces (B) from 1500 mm to 1750 mm

TECHNICAL SPECIFICATIONS

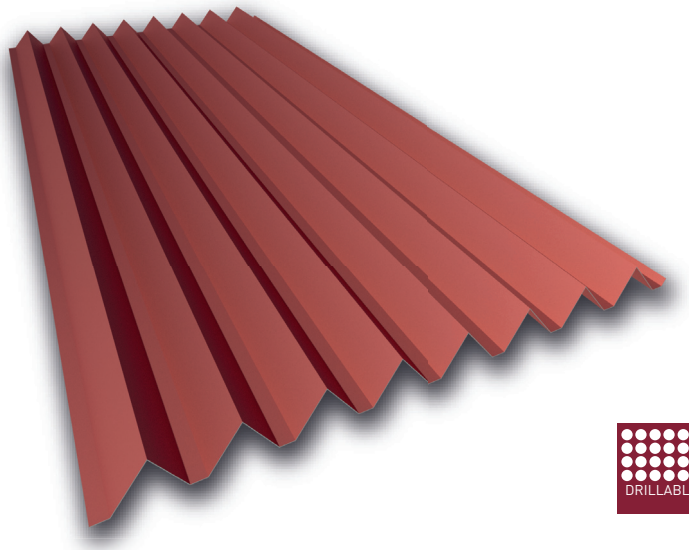
Geometric Specifications				
Characteristic	Value	Units	Tolerance /	Standard
Profile thickness (h)	35 (1.38)	mm (in.)	±1.5	EN 508-1
Thickness of stiffeners	0	mm	+3/-1	EN 508-1
Wave Pitch	59	mm	±3.0	EN 508-1
Width of the ridge and valley	17/16	mm	+4/-1	EN 508-1
Useful width (w)	314 (12.36)	mm (in.)	$(\pm 0.1 \cdot h)_{and} \leq 15$	EN 508-1
Bending radius (r)	3	mm	±2.0	EN 508-1
Length (l)	1250 (49.21) to 6000 (236.22)	mm (in.)	+20/- 5	EN 508-1



Features of the Profile				
Characteristic	Value	Units	Tolerance /	Standard
Deviation from straightness	≤ to the tolerance	mm	±2/ml (max.10)	EN 508-1
Deviation from quadrature	≤ to the tolerance	mm	≤ 0.005*w	EN 508-1
Deviation of the side overlap	≤ to the tolerance	mm	±2 s/500 mm	EN 508-1
Radius and angles of curvature	--	mm	--	EN 508-1
Sheet thickness	0.60 (0.023) to 0.80 (0.031)	mm (in.)	UNE 10143	
Type of steel	S220GD to S320GD		UNE 10346	
Changes in measurements	12 x 10^{-6}K		UNE 14782	
Water resistance	Pass		UNE 14782	
Hazardous substance emissions	No emissions			
Behavior against fire	Broof (t1)		RD 110/2008	
Galvanized coating	UNE 10346			
Pre-painted coating	UNE 10169			
Fire resistance	Class A1			

MT-53 MALLORCA

PROFILED FAÇADE SHEET



RAW MATERIAL
Steel

FINISH
Pre-painted/Galvanized

USEFUL WIDTH
804/868/990 mm
(31.65/34.17/38.98 in.)

DRILLABLE
R3T5 standard
(consult other drillable panels)

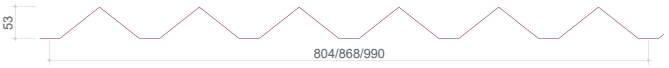
THICKNESSES mm (in.)
Up to 0.8
(0.031)

USE
Façades / False roof

THICKNESS mm (in.)			
0.50 (0.019)	0.60 (0.023)	0.70 (0.031)	0.80 (0.031)
4.96	5.95	6.94	7.93

Weight [kg/m²]-PF-MALLORCA-6

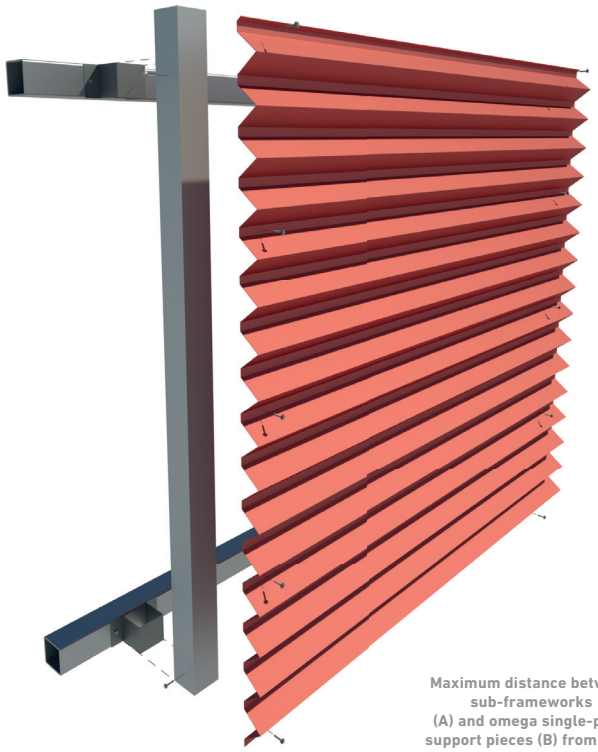
DRILLABLE



CHARACTERISTICS

new line of uniquely designed profiles offers a variety of possibilities for finishing and is able to adapt seamlessly to the requirements and specifics of each project.

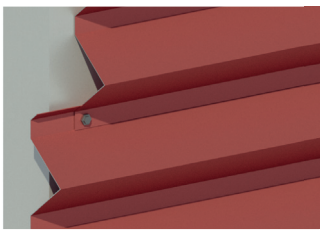
The profile Hiansa - Mallorca has a length of up to 6.00 m (19.69 ft) and can be manufactured in 3 useful widths: 804 mm (34.17 in.), 868 mm (34.17 in.) and 990 mm (38.98 in.). With a nerve height of 53 mm (2.09 in.) and its triangular shape, it offers an attractive light and shadow effect on the façade that will make the wall come to life as the amount of sunlight changes throughout the day. Its design, with a discreet fit between each piece and with the fixing system seen on a substructure that is adjustable in depth, can be installed both vertically and horizontally, thus adapting to the most demanding conditions to create a wall with a high-quality finish.

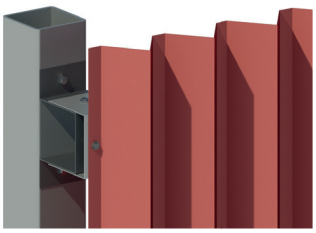


Maximum distance between sub-frameworks (A) and omega single-point support pieces (B) from 1500 mm to 1750 mm

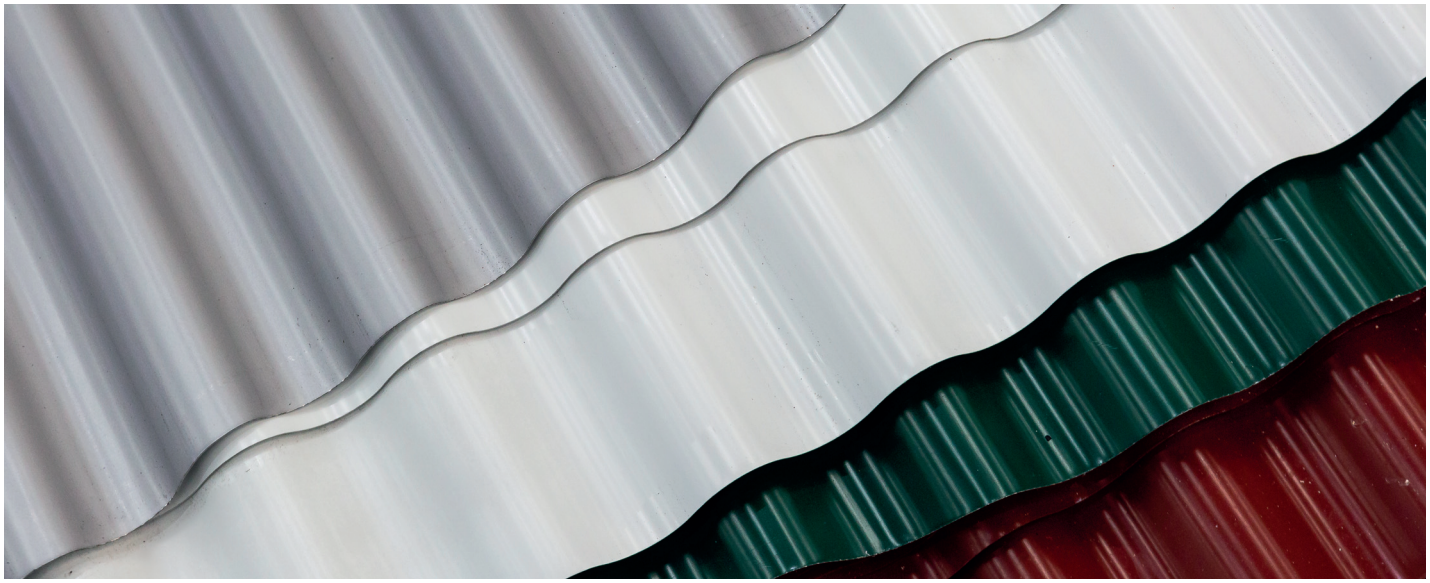
TECHNICAL SPECIFICATIONS

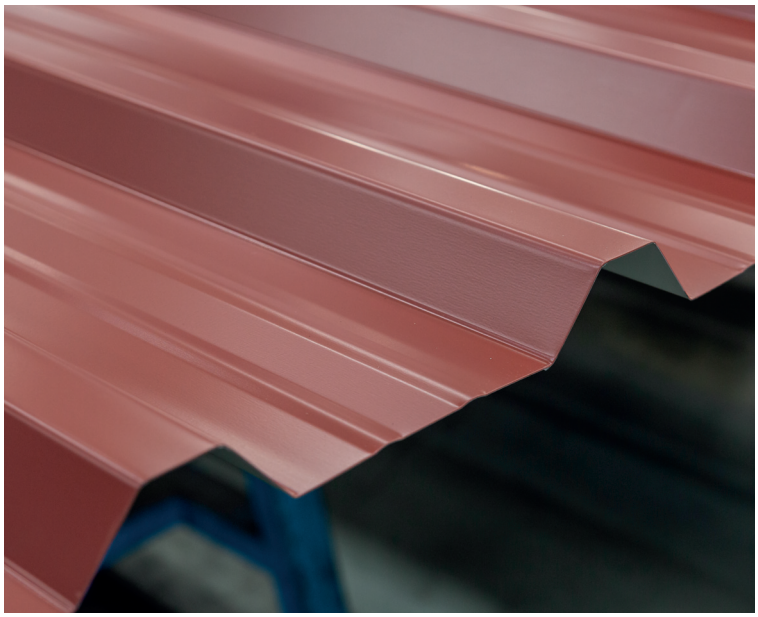
Geometric Specifications				
Characteristic	Value	Units	Tolerance / Standard	
Profile thickness (h)	53 (2.09 in.)	mm	±1.5	EN 508-1
Thickness of stiffeners	0	mm	+3/-1	EN 508-1
Wave Pitch	100/124/165	mm	±3.0	EN 508-1
Width of the ridge and valley	0-20/34/33	mm	+4/-1	EN 508-1
Useful width (w)	804/868/990	mm	(±0.1 • h) and ≤15	EN 508-1
Bending radius (r)	3	mm	±2.0	EN 508-1
Length (l)	1250 (49.21) to 6000 (236.22)	mm	+20/-5	EN 508-1





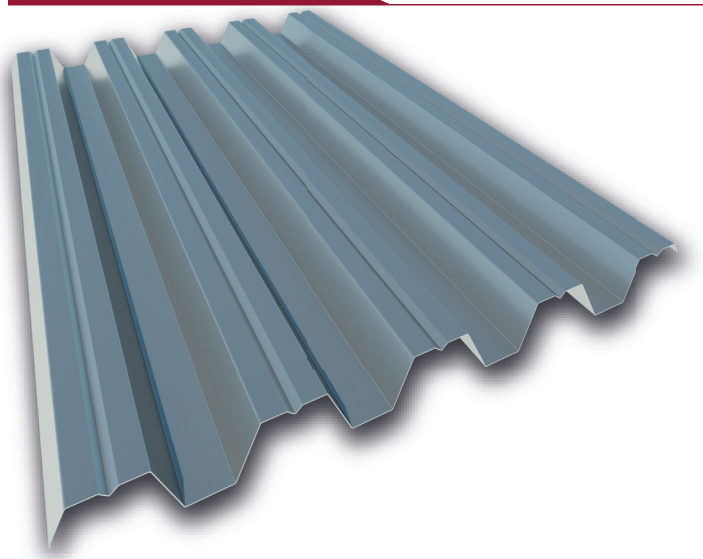
Features of the Profile				
Characteristic	Value	Units	Tolerance / Standard	
Deviation from straightness	≤ to the tolerance	mm	±2/ml (max.10)	EN 508-1
Deviation from quadrature	≤ to the tolerance	mm	≤ 0.005*w	EN 508-1
Deviation of the side overlap	≤ to the tolerance	mm	±2 s/500 mm	EN 508-1
Radius and angles of curvature	--	mm	--	EN 508-1
Sheet thickness	0.60 (0.023) to 0.80 (0.031)	mm (in.)	UNE 10143	
Type of steel	S220GD to S320GD		UNE 10346	
Changes in measurements	12 x 10^{-6}K		UNE 14782	
Water resistance	Pass		UNE 14782	
Hazardous substance emissions	No emissions			
Behavior against fire	Broof (t1)		RD 110/2008	
Galvanized coating	UNE 10346			
Pre-painted coating	UNE 10169			
Fire resistance	Class A1			





MT-60 SE

PROFILED SHEET



RAW MATERIAL
Steel

THICKNESSES mm (in.)
From 0.7 to 1.2
(0.027-0.047)

FINISH
Pre-painted/Galvanized

USEFUL WIDTH
820 mm (32.28 in.)

DRILLABLE

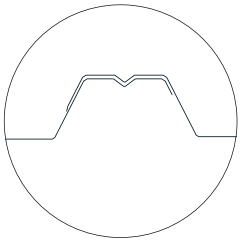
CHARACTERISTICS

height of 60 mm (2.36 in.), which gives it a very good resistance for large spans. The thicknesses can range from 0.7 mm (0.027 in.) to 1.20 mm (0.047 in.). Its useful width is 820 mm (32.28 in.) and its usual length ranges between 2000 mm (78.74 in.) and 14,000 mm (551.18 in.).

Available in both galvanized and pre-painted in a wide range of colors offered by HIANSA. For those mounting solutions that require it, this sheet can be provided with holes drilled 3 mm in diameter, 5 mm between shafts and staggered 60°.

	THICKNESS mm (in.)				
	0.70 (0.027)	0.75 (0.029)	0.80 (0.031)	1.00 (0.039)	1.20 (0.047)
P (kg/m²)	8.39	8.97	9.57	11.97	14.36
I (cm⁴/m)	53.02	58.75	60.38	75.47	90.56
W (cm³/M) - upper fiber	16.28	17.79	18.56	23.14	27.68

P=profile weight per square meter I=profile inertia per linear meter W=resistant module profile per linear meter



OVERLAP DETAIL

TECHNICAL SPECIFICATIONS

Geometric Specifications				
Characteristic	Value	Units	Tolerance /	Standard
Profile thickness (h)	60 (2.36)	mm (in.)	±1.5	EN 508-1
Thickness of stiffeners	-	mm	+3/-1	EN 508-1
Wave Pitch	205	mm	±3.0	EN 508-1
Width of the ridge and valley	84/58	mm	+4/-1	EN 508-1
Useful width (w)	820 (32.28)	mm (in.)	$(\pm 0.1 \cdot h)_{and} \leq 15$	EN 508-1
Bending radius (r)	3	mm	±2.0	EN 508-1
Length (l)	2000 (78.74) to 14,000 (551.18)	mm (in.)	+20/-5	EN 508-1

Features of the Profile				
Characteristic	Value	Units	Tolerance / Standard	
Deviation from straightness	≤ to the tolerance	mm	±2/ml (max.10)	EN 508-1
Deviation from quadrature	≤ to the tolerance	mm	≤ 0.005*w	EN 508-1
Deviation of the side overlap	≤ to the tolerance	mm	±2 s/500 mm	EN 508-1
Radius and angles of curvature	--	mm	--	EN 508-1
Sheet thickness	0.7 to 1.2	mm	UNE 10143	
Type of steel	S220GD to S320GD		UNE 10346	
Changes in measurements	12×10^{-6}K		UNE 14782	
Water resistance	Pass		UNE 14782	
Hazardous substance emissions	No emissions			
Behavior against fire	Broof (t1)		RD 110/2008	
Galvanized coating	UNE 10346			
Pre-painted coating	UNE 10169			
Fire resistance	Class A1			

MT-60 SE

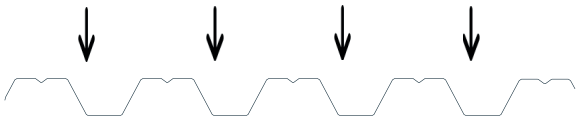
PROFILED SHEET

ROOFING and FORMWORK

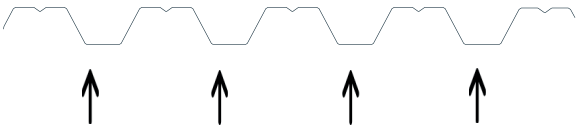
fy=220 N/mm² - POSITION SIDE "A"

ADMISSIBLE LOADS (kp/m2) ACCORDING TO DISTANCE BETWEEN PURLINS (m)

1 OPENING	LOAD PRESSURE																								
in (mm)	1.00	1.20	1.40	1.60	1.80	2.00	2.20	2.40	2.60	2.80	3.00	3.20	3.40	3.60	3.80	4.00	4.20	4.40	4.60	4.80	5.00	5.20	5.40	5.60	5.80	6.00
0.70	1900	1318	966	738	582	470	388	301	235	187	150	123	101	84	70	59	50	43	37	31	27	23	20	17	15	13
0.75	2037	1413	1036	792	624	504	416	324	253	201	162	132	109	91	76	64	54	46	39	34	29	25	21	18	16	14
0.80	2171	1506	1104	844	665	537	443	345	270	214	173	141	116	97	81	68	58	49	42	36	31	27	23	20	17	15
1.00	2704	1875	1375	1051	828	669	551	432	337	268	216	176	145	121	101	85	72	62	53	45	39	33	29	25	21	18
1.20	3234	2242	1644	1257	991	800	659	518	405	322	260	212	174	145	122	102	87	74	63	54	47	40	34	30	25	22
2 OPENINGS	LOAD PRESSURE																								
in (mm)	1.00	1.20	1.40	1.60	1.80	2.00	2.20	2.40	2.60	2.80	3.00	3.20	3.40	3.60	3.80	4.00	4.20	4.40	4.60	4.80	5.00	5.20	5.40	5.60	5.80	6.00
0.70	1457	1010	740	565	445	360	296	248	210	180	156	137	120	107	95	85	77	69	63	57	52	48	44	40	37	34
0.75	1602	1110	814	621	490	395	325	272	231	198	172	150	132	117	105	94	84	76	69	63	57	53	48	44	41	38
0.80	1750	1213	889	679	535	432	356	298	253	217	188	164	145	128	114	103	92	84	76	69	63	58	53	49	45	42
1.00	2373	1645	1206	922	726	586	483	405	343	295	256	224	197	175	156	140	126	114	104	94	86	79	73	67	62	57
1.20	3035	2105	1543	1179	929	751	618	518	440	378	328	287	253	224	200	179	162	146	133	121	111	102	94	86	78	70
3 OPENINGS	LOAD PRESSURE																								
in (mm)	1.00	1.20	1.40	1.60	1.80	2.00	2.20	2.40	2.60	2.80	3.00	3.20	3.40	3.60	3.80	4.00	4.20	4.40	4.60	4.80	5.00	5.20	5.40	5.60	5.80	6.00
0.70	1823	1264	927	708	558	451	372	311	264	227	197	172	152	135	120	108	97	87	75	66	57	50	44	39	34	30
0.75	2004	1389	1019	779	614	496	409	342	291	250	217	189	167	148	132	119	107	94	81	71	62	54	47	42	37	32
0.80	2189	1518	1113	851	671	542	446	374	318	273	237	207	183	162	145	130	116	100	87	75	66	58	51	44	39	35
1.00	2969	2059	1510	1154	910	735	606	508	431	371	322	282	249	221	197	170	146	125	108	94	82	72	63	56	49	43
1.20	3797	2633	1932	1477	1164	941	776	650	552	475	412	361	318	283	240	204	175	150	130	113	99	86	76	67	59	52



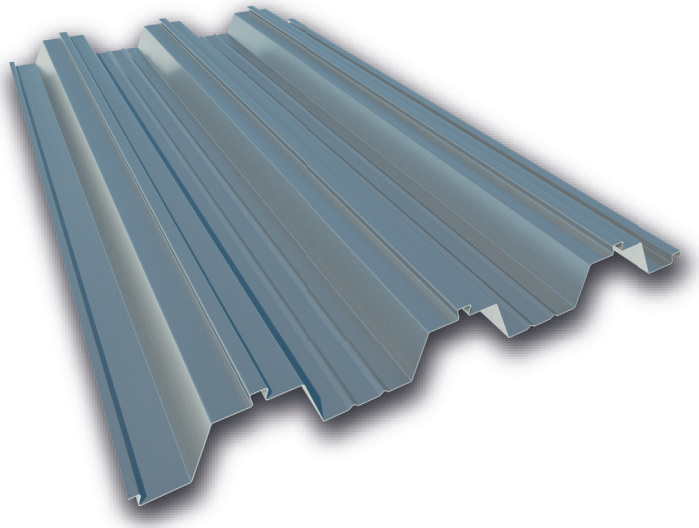
1 OPENING	LOADS SUCTION																								
in (mm)	1.00	1.20	1.40	1.60	1.80	2.00	2.20	2.40	2.60	2.80	3.00	3.20	3.40	3.60	3.80	4.00	4.20	4.40	4.60	4.80	5.00	5.20	5.40	5.60	5.80	6.00
0.70	1470	1023	753	578	458	372	309	261	219	177	145	121	102	87	75	65	57	51	45	41	37	34	31	28	26	24
0.75	1615	1124	827	635	503	409	339	286	237	192	157	131	110	94	81	71	62	55	49	44	40	36	33	31	28	26
0.80	1764	1227	904	694	550	447	370	312	256	206	169	141	119	101	87	76	67	59	53	48	43	39	36	33	30	28
1.00	2391	1664	1225	940	744	605	501	420	332	268	220	183	154	132	113	99	87	77	68	61	55	50	46	42	39	36
1.20	3057	2126	1565	1201	951	773	640	522	414	334	273	227	192	163	141	122	107	95	84	76	69	62	57	52	48	45
2 OPENINGS	LOADS SUCTION																								
in (mm)	1.00	1.20	1.40	1.60	1.80	2.00	2.20	2.40	2.60	2.80	3.00	3.20	3.40	3.60	3.80	4.00	4.20	4.40	4.60	4.80	5.00	5.20	5.40	5.60	5.80	6.00
0.70	1913	1330	979	751	595	483	400	337	288	250	218	193	171	153	138	126	114	105	96	88	79	71	64	58	53	49
0.75	2051	1426	1050	805	638	518	429	362	309	268	234	206	184	165	148	135	123	112	103	96	85	77	69	63	57	53
0.80	2186	1520	1119	858	680	552	457	386	330	285	249	220	196	175	158	144	131	120	110	102	92	83	75	68	62	57
1.00	2722	1893	1393	1069	847	687	570	480	411	355	311	274	244	219	197	179	163	149	137	127	118	107	97	88	80	73
1.20	325	2264	1666	1278	1012	822	681	574	491	425	372	328	292	261	236	214	195	179	164	152	141	131	120	109	99	91
3 OPENINGS	LOADS SUCTION																								
in (mm)	1.00	1.20	1.40	1.60	1.80	2.00	2.20	2.40	2.60	2.80	3.00	3.20	3.40	3.60	3.80	4.00	4.20	4.40	4.60	4.80	5.00	5.20	5.40	5.60	5.80	6.00
0.70	2294	1595	1173	900	712	578	479	403	345	298	261	222	186	158	136	117	102	90	79	71	63	57	52	47	43	40
0.75	2520	1752	1289	989	783	635	526	443	379	327	286	240	202	171	147	127	111	97	86	77	69	62	56	51	47	43
0.80	2730	1898	1397	1071	848	688	570	480	410	355	310	259	217	184	158	137	119	105	93	82	74	67	61	55	50	46
1.00	3400	2364	1739	1334	1056	857	710	598	511	442	386	336	282	239	205	177	154	136	120	107	96	86	78	71	65	60
1.20	4067	2827	2080	1595	1263	1025	849	715	611	528	462	407	351	298	255	220	192	169	149	133	119	107	97	88	80	74



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 EUROCODES standard. 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.

MT-76 SE

PROFILED SHEET



RAW MATERIAL
Steel

THICKNESSES mm (in.)
From 0.7 to 1.2
(0.027-0.047)

FINISH
Pre-painted/Galvanized

USEFUL WIDTH
880 mm (34.65 in.)

PROFILE NOT OVERLAPPABLE TRANSVERSELY

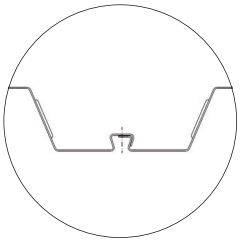
CHARACTERISTICS

Hiansa's profiled sheet MT-76 SE is specially designed for lost formworks and as a support for roofs. This profiled sheet has a rib height of 76 mm (2.99 in.), which gives it a very good resistance for large spans. The thicknesses can range from 0.70 (0.027 in.) mm to 1.20 mm 0.047 in.). Its useful width is 880 mm (34.65 in.) and its usual length ranges between 2000 mm (78.74 in.) and 14,000 mm (551.18 in.).
Available in galvanized steel sheet.

Profile NOT overlappable at the joint in the transverse direction.

	THICKNESS mm (in.)				
	0.70 (0.027)	0.75 (0.029)	0.80 (0.031)	1.00 (0.039)	1.20 (0.047)
P (kg/m²)	7.81	8.36	8.92	11.15	13.38
I (cm⁴/m)	75.00	75.58	89.00	111.10	133.00
W (cm³/M) - upper fiber	23.57	24.01	27.30	33.80	40.50

P=profile weight per square meter I=profile inertia per linear meter W=resistant module profile per linear meter



OVERLAP DETAIL

TECHNICAL SPECIFICATIONS

Geometric Specifications				
Characteristic	Value	Units	Tolerance / Standard	
Profile thickness (h)	76 (2.99 in.)	mm	±1.5	EN 508-1
Thickness of stiffeners	-	mm	+3/-1	EN 508-1
Wave Pitch	293	mm	±3.0	EN 508-1
Width of the ridge and valley	164/129	mm	+4/-1	EN 508-1
Useful width (w)	880 (34.65 in.)	mm	(±0.1*h) and ≤ 15	EN 508-1
Bending radius (r)	3	mm	±2.0	EN 508-1
Length (l)	2000 (78.74) to 14,000 (551.18)	mm	+20/-5	EN 508-1

Features of the Profile				
Characteristic	Value	Units	Tolerance / Standard	
Deviation from straightness	≤ to the tolerance	mm	±2/ml (max.10)	EN 508-1
Deviation from quadrature	≤ to the tolerance	mm	≤ 0.005*w	EN 508-1
Deviation of the side overlap	≤ to the tolerance	mm	±2 s/500 mm	EN 508-1
Radius and angles of curvature	--	mm	--	EN 508-1
Sheet thickness	0.7 to 1.2	mm	UNE 10143	
Type of steel	S220GD to S320GD		UNE 10346	
Changes in measurements	12 x 10^{-6}K		UNE 14782	
Water resistance	Pass		UNE 14782	
Hazardous substance emissions	No emissions			
Behavior against fire	Broof (t1)		RD 110/2008	
Galvanized coating	UNE 10346			
Pre-painted coating	UNE 10169			
Fire resistance	Class A1			

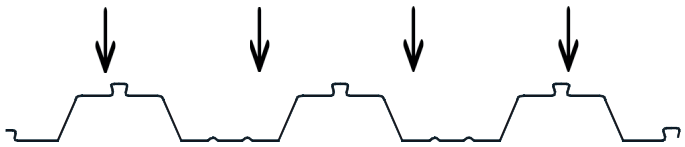
MT-76 SE

PROFILED SHEET

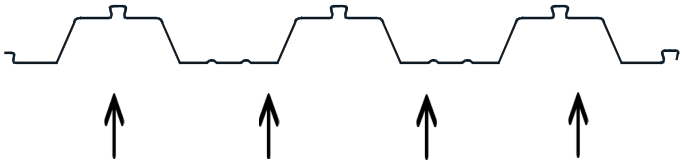
ROOFING and FORMWORK

fy=220 N/mm² - POSITION SIDE "A"
ADMISSIBLE LOADS (kp/m2) ACCORDING TO DISTANCE BETWEEN PURLINS (m)

1 OPENING	LOAD PRESSURE																								
in (mm)	1.00	1.20	1.40	1.60	1.80	2.00	2.20	2.40	2.60	2.80	3.00	3.20	3.40	3.60	3.80	4.00	4.20	4.40	4.60	4.80	5.00	5.20	5.40	5.60	5.80	6.00
0.70	2680	1859	1364	1043	823	665	525	403	315	251	203	166	137	114	96	81	69	59	51	44	38	33	29	25	22	19
0.75	2898	2011	1475	1128	890	719	578	443	347	276	223	182	151	126	106	90	76	65	56	49	42	36	32	28	24	21
0.80	3066	2127	1560	1193	941	761	613	470	368	293	237	194	160	133	112	95	81	69	60	52	45	39	34	29	26	22
1.00	3835	2660	1952	1492	1177	952	785	607	475	378	306	250	207	172	145	123	105	90	77	67	58	50	44	38	33	29
1.20	4594	3187	2338	1788	1410	1140	940	738	578	460	372	304	251	210	177	150	128	109	94	81	71	61	53	47	41	36
2 OPENINGS	LOAD PRESSURE																								
in (mm)	1.00	1.20	1.40	1.60	1.80	2.00	2.20	2.40	2.60	2.80	3.00	3.20	3.40	3.60	3.80	4.00	4.20	4.40	4.60	4.80	5.00	5.20	5.40	5.60	5.80	6.00
0.70	2334	1619	1188	908	716	579	477	400	340	292	254	222	196	174	157	140	126	114	104	95	87	80	74	68	63	56
0.75	2604	1806	1325	1013	799	646	532	446	379	326	283	248	219	194	174	156	141	128	116	106	97	89	82	76	69	62
0.80	2807	1947	1428	1092	861	696	574	481	409	352	305	267	236	210	187	168	152	138	126	115	105	97	89	82	73	66
1.00	3622	2512	1843	1409	1111	899	741	621	528	454	394	345	305	271	242	218	197	178	162	148	136	125	115	107	95	85
1.20	4392	3046	2235	1709	1348	1090	899	753	640	550	478	419	370	329	294	264	238	216	197	180	165	152	140	129	116	103
3 OPENINGS	LOAD PRESSURE																								
in (mm)	1.00	1.20	1.40	1.60	1.80	2.00	2.20	2.40	2.60	2.80	3.00	3.20	3.40	3.60	3.80	4.00	4.20	4.40	4.60	4.80	5.00	5.20	5.40	5.60	5.80	6.00
0.70	2919	2025	1486	1136	987	725	598	501	426	367	319	279	247	219	188	160	137	119	103	90	78	69	61	54	48	42
0.75	3256	2259	1658	1268	1000	809	667	560	476	409	356	312	275	245	207	176	151	130	113	99	86	76	67	59	52	47
0.80	3511	2436	1787	1367	1078	872	719	603	513	441	383	336	297	259	219	187	160	138	120	105	92	81	71	63	56	50
1.00	4530	3143	2307	1764	1392	1125	929	779	662	570	495	434	383	335	283	241	207	179	155	135	119	104	92	81	72	64
1.20	5493	3811	2797	2139	1688	1365	1126	944	803	691	600	526	465	407	344	293	252	217	189	165	144	127	112	99	88	78



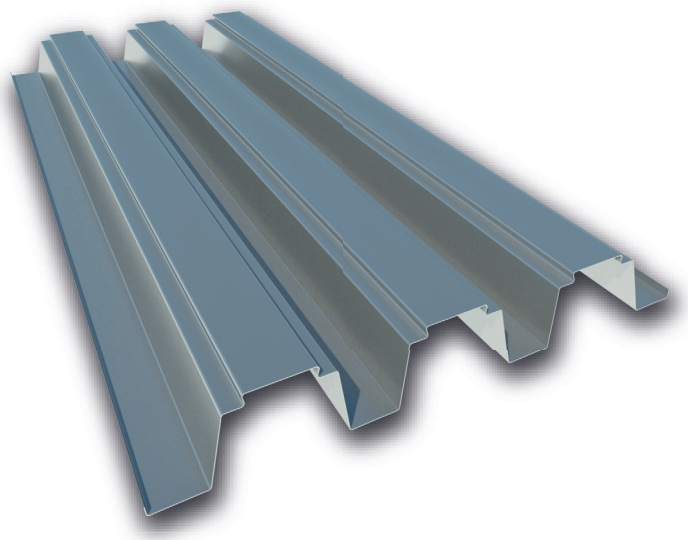
1 OPENING	LOAD SUCTION																								
in (mm)	1.00	1.20	1.40	1.60	1.80	2.00	2.20	2.40	2.60	2.80	3.00	3.20	3.40	3.60	3.80	4.00	4.20	4.40	4.60	4.80	5.00	5.20	5.40	5.60	5.80	6.00
0.70	2347	1632	1201	921	729	592	490	413	327	263	216	179	150	128	110	95	83	73	65	58	52	47	43	39	36	33
0.75	2618	1820	1339	1027	813	660	547	456	360	290	237	197	166	141	121	105	92	81	72	64	58	52	47	43	40	37
0.80	2822	1962	1443	1107	877	711	589	485	383	308	252	209	176	149	128	111	97	86	76	68	61	55	50	46	42	39
1.00	3641	2531	1862	1428	1130	917	760	616	487	392	321	266	224	190	163	141	123	109	96	86	77	70	64	58	53	49
1.20	4414	3069	2258	1731	1370	1112	921	745	588	474	387	322	270	229	197	171	149	131	116	104	93	84	77	70	64	59
2 OPENINGS	LOAD SUCTION																								
in (mm)	1.00	1.20	1.40	1.60	1.80	2.00	2.20	2.40	2.60	2.80	3.00	3.20	3.40	3.60	3.80	4.00	4.20	4.40	4.60	4.80	5.00	5.20	5.40	5.60	5.80	6.00
0.70	2693	1872	1377	1056	836	678	562	473	404	349	305	269	239	214	193	174	159	145	134	123	114	104	93	84	77	70
0.75	2913	2025	1489	1142	904	734	607	512	437	378	330	291	258	231	208	189	172	157	144	133	123	114	103	93	84	77
0.80	3081	2142	1575	1208	956	776	642	541	462	399	349	308	273	245	220	200	182	166	153	141	130	121	109	99	90	82
1.00	3854	2679	1971	1511	1196	970	804	677	578	500	437	385	342	306	276	250	227	208	191	176	163	152	139	125	114	104
1.20	4616	3209	2361	1810	1432	1162	963	811	692	599	523	461	410	367	330	299	272	249	229	211	195	182	167	151	137	125
3 OPENINGS	LOAD SUCTION																								
in (mm)	1.00	1.20	1.40	1.60	1.80	2.00	2.20	2.40	2.60	2.80	3.00	3.20	3.40	3.60	3.80	4.00	4.20	4.40	4.60	4.80	5.00	5.20	5.40	5.60	5.80	6.00
0.70	3364	2338	1720	1318	1043	846	700	590	503	435	380	331	277	235	201	173	151	132	116	103	92	83	75	68	62	56
0.75	3639	2529	1860	1426	1128	915	758	638	544	470	411	362	305	259	221	191	166	145	128	114	101	91	82	75	68	62
0.80	3849	2675	1967	1508	1193	968	801	674	576	497	434	383	325	275	235	203	176	154	136	121	108	97	87	79	72	66
1.00	4815	3346	2461	1886	1492	1211	1002	844	720	622	543	479	413	349	299	258	224	196	173	153	137	123	111	100	91	84
1.20	5767	4009	2948	2260	1788	1450	1201	1011	863	745	651	573	499	422	361	311	270	237	209	185	165	148	134	121	110	101



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 EUROCODES standard. 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.

MT-100 SE

PROFILED SHEET



RAW MATERIAL
Steel

THICKNESSES mm (in.)
From 0.7 to 1.2
(0.027-0.047)

FINISH
Pre-painted/Galvanized

USEFUL WIDTH
675 mm (26.57 in.)

PROFILE NOT OVERLAPPABLE TRANSVERSELY

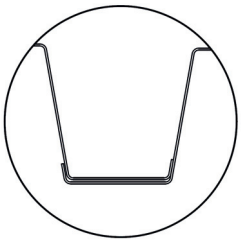
CHARACTERISTICS

Hiansa's profiled sheet MT-100 SE is specially designed for lost formwork and as roof support.
This profiled sheet has a rib height of 100 mm (3.94 in.), which gives it a very good resistance for large spans. The thicknesses can range from 0.7 mm (0.027 in.) up to 1.20 mm (0.047 in.). Its useful width is 675 mm (26.57 in.) and its usual length ranges between 2000 mm (78.74 in.) and 14,000 mm (551.18 in.).
Available in galvanized steel sheet.

Profile NOT overlappable at the joint in the transverse direction.

	THICKNESS mm (in.)				
	0.70 (0.027)	0.75 (0.029)	0.80 (0.031)	1.00 (0.039)	1.20 (0.047)
P (kg/m²)	10.18	10.90	11.63	14.54	17.44
I (cm⁴/m)	172.23	182.64	195.78	244.81	294.72
W (cm³/M) - upper fiber	30.59	31.95	34.50	43.09	52.06

P=profile weight per square meter I=profile inertia per linear meter W=resistant module profile per linear meter



OVERLAP DETAIL

TECHNICAL SPECIFICATIONS

Geometric Specifications				
Characteristic	Value	Units	Tolerance / Standard	
Profile thickness (h)	100 (3.94)	mm (in.)	±1.5	EN 508-1
Thickness of stiffeners	-	mm	+3/-1	EN 508-1
Wave Pitch	225	mm	±3.0	EN 508-1
Width of the ridge and valley	132.46/65	mm	+4/-1	EN 508-1
Useful width (w)	675 (26.57)	mm (in.)	(±0.1 • h) and ≤15	EN 508-1
Bending radius (r)	3	mm	±2.0	EN 508-1
Length (l)	2000 (78.74) to 14,000 (551.18)	mm (in.)	+20/-5	EN 508-1

Features of the Profile				
Characteristic	Value	Units	Tolerance / Standard	
Deviation from straightness	≤ to the tolerance	mm	±2/ml (max.10)	EN 508-1
Deviation from quadrature	≤ to the tolerance	mm	≤ 0.005*w	EN 508-1
Deviation of the side overlap	≤ to the tolerance	mm	±2 s/500 mm	EN 508-1
Radius and angles of curvature	--	mm	--	EN 508-1
Sheet thickness	0.7 to 1.2	mm	UNE 10143	
Type of steel	S220GD to S320GD		UNE 10346	
Changes in measurements	12 x 10^{-6}K		UNE 14782	
Water resistance	Pass		UNE 14782	
Hazardous substance emissions	No emissions			
Behavior against fire	Broof (t1)		RD 110/2008	
Galvanized coating	UNE 10346			
Pre-painted coating	UNE 10169			
Fire resistance	Class A1			

MT-100 SE

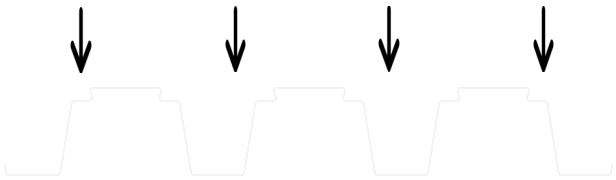
PROFILED SHEET

ROOFING and FORMWORK

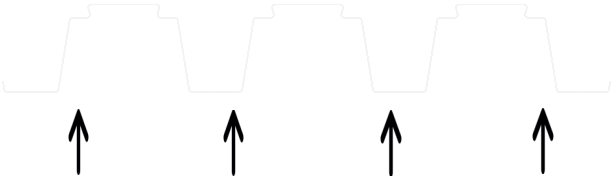
fy=220 N/mm² - POSITION SIDE "A"

ADMISSIBLE LOADS (kp/m2) ACCORDING TO DISTANCE BETWEEN PURLINS (m)

1 OPENING	LOAD PRESSURE																								
in (mm)	1.00	1.20	1.40	1.60	1.80	2.00	2.20	2.40	2.60	2.80	3.00	3.20	3.40	3.60	3.80	4.00	4.20	4.40	4.60	4.80	5.00	5.20	5.40	5.60	5.80	6.00
0.70	3325	2306	1692	1294	1021	825	680	570	485	417	362	317	280	245	207	176	151	130	113	98	86	75	66	58	52	46
0.75	3564	2472	1814	1387	1094	884	729	611	520	447	388	340	300	263	222	189	162	140	121	105	92	81	71	63	56	49
0.80	3819	2649	1944	1486	1172	948	782	655	557	479	416	365	322	284	240	204	175	151	131	114	99	87	77	68	60	53
1.00	4850	3364	2469	1887	1489	1204	993	832	707	608	528	463	409	363	311	265	227	196	170	148	129	113	100	88	78	69
1.20	5892	4088	2999	2293	1809	1463	1206	1011	860	739	642	563	497	442	385	328	281	243	210	183	160	141	124	110	97	86
2 OPENINGS	LOAD PRESSURE																								
in (mm)	1.00	1.20	1.40	1.60	1.80	2.00	2.20	2.40	2.60	2.80	3.00	3.20	3.40	3.60	3.80	4.00	4.20	4.40	4.60	4.80	5.00	5.20	5.40	5.60	5.80	6.00
0.70	2462	1707	1252	957	754	609	502	421	357	307	266	233	206	182	163	146	132	119	109	99	91	83	77	71	65	60
0.75	2904	2014	1477	1129	890	720	593	497	422	363	315	276	243	216	193	173	156	142	129	118	108	99	91	84	78	72
0.80	3279	2274	1668	1275	1006	813	670	562	477	410	356	312	275	244	218	196	177	161	146	133	122	112	103	96	88	82
1.00	4385	3042	2232	1706	1345	1088	897	752	639	549	477	418	369	328	293	263	238	215	196	179	164	151	139	129	119	110
1.20	5591	3879	2846	2176	1716	1387	1144	959	815	701	609	533	471	419	374	336	304	276	251	229	210	193	178	165	153	142
3 OPENINGS	LOAD PRESSURE																								
in (mm)	1.00	1.20	1.40	1.60	1.80	2.00	2.20	2.40	2.60	2.80	3.00	3.20	3.40	3.60	3.80	4.00	4.20	4.40	4.60	4.80	5.00	5.20	5.40	5.60	5.80	6.00
0.70	3080	2136	1567	1198	945	764	630	528	449	386	335	293	259	230	206	185	167	151	138	126	115	106	98	90	84	78
0.75	3633	2520	1849	1414	1115	902	744	623	530	456	396	347	306	272	243	219	198	179	163	149	137	126	116	107	100	92
0.80	4101	2845	2088	1596	1259	1018	840	704	599	515	447	392	346	308	275	248	224	203	185	169	155	143	132	122	113	105
1.00	5484	3805	2792	2135	1685	1362	1124	942	801	689	599	525	464	412	369	332	300	272	248	227	208	192	177	164	152	141
1.20	6993	4852	3561	2723	2149	1738	1434	1202	1022	880	765	670	592	527	471	424	383	348	317	290	266	245	226	209	194	177



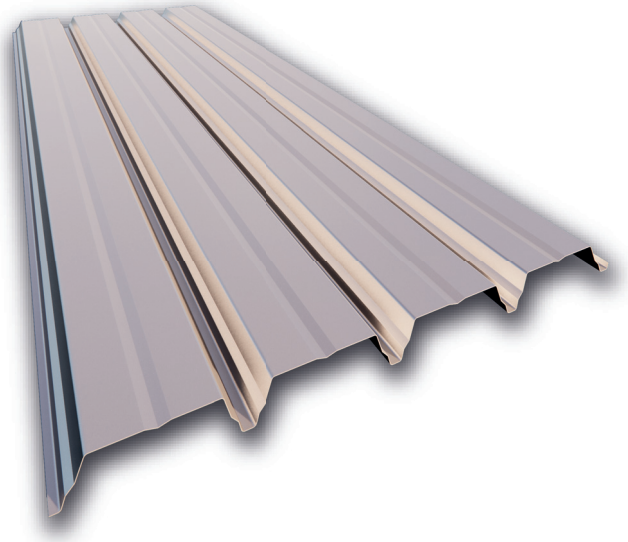
1 OPENING	LOAD SUCTION																								
in (mm)	1.00	1.20	1.40	1.60	1.80	2.00	2.20	2.40	2.60	2.80	3.00	3.20	3.40	3.60	3.80	4.00	4.20	4.40	4.60	4.80	5.00	5.20	5.40	5.60	5.80	6.00
0.70	2479	1724	1269	973	771	626	519	437	374	323	283	249	222	199	179	163	148	136	122	108	97	87	79	72	65	60
0.75	2922	2032	1495	1147	908	737	611	515	440	380	332	293	261	234	211	191	174	157	139	123	110	99	90	81	74	68
0.80	3298	2293	1687	1294	1024	832	689	580	496	429	375	331	294	263	237	215	196	175	155	137	123	110	100	90	82	75
1.00	4408	3065	2255	1729	1369	1111	920	775	662	573	500	441	392	351	316	287	258	226	199	177	158	142	128	116	106	97
1.20	5619	3907	2874	2204	1744	1415	1172	987	843	729	637	561	499	447	402	364	319	280	247	219	196	176	159	144	131	120
2 OPENINGS	LOAD SUCTION																								
in (mm)	1.00	1.20	1.40	1.60	1.80	2.00	2.20	2.40	2.60	2.80	3.00	3.20	3.40	3.60	3.80	4.00	4.20	4.40	4.60	4.80	5.00	5.20	5.40	5.60	5.80	6.00
0.70	3341	2323	1709	1310	1037	841	697	587	501	433	379	334	297	265	239	217	197	180	166	153	142	131	123	115	107	101
0.75	3581	2490	1831	1404	1111	902	747	629	537	464	406	358	318	284	256	232	211	193	178	164	152	141	131	123	115	108
0.80	3838	2668	1963	1505	1191	967	800	674	576	498	435	383	341	305	275	249	226	207	190	176	163	151	141	131	123	116
1.00	4873	3388	2492	1911	1512	1227	1016	856	731	632	552	486	432	387	348	316	287	263	241	223	206	192	178	167	156	147
1.20	5920	4116	3028	2321	1837	1491	1234	1040	888	767	670	591	525	470	423	383	349	319	293	270	250	233	217	202	190	178
3 OPENINGS	LOAD SUCTION																								
in (mm)	1.00	1.20	1.40	1.60	1.80	2.00	2.20	2.40	2.60	2.80	3.00	3.20	3.40	3.60	3.80	4.00	4.20	4.40	4.60	4.80	5.00	5.20	5.40	5.60	5.80	6.00
0.70	3868	2689	1978	1516	1200	973	806	678	579	501	437	385	342	306	276	249	227	208	191	176	163	151	141	127	115	105
0.75	4474	3110	2287	1753	1387	1125	931	784	669	578	505	445	395	353	318	288	262	239	220	203	187	174	160	145	131	120
0.80	4795	3333	2451	1879	1486	1206	998	840	717	620	541	477	423	379	341	309	281	257	236	217	201	186	174	161	146	133
1.00	6088	4232	3112	2385	1887	1531	1267	1067	911	787	687	605	537	481	433	392	356	326	299	275	255	236	220	206	188	171
1.20	7397	5141	3781	2898	2293	1860	1539	1296	1106	956	834	735	653	584	525	476	433	395	363	335	309	287	267	250	233	212



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 EUROCODES standard. 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.

MT-56 DECK

PROFILED SHEET



RAW MATERIAL
Steel

THICKNESSES mm (in.)
From 0.7 to 1.2
(0.027-0.047)

FINISH
Pre-painted/Galvanized

USEFUL WIDTH
952 mm (37.48 in.)

DRILLABLE

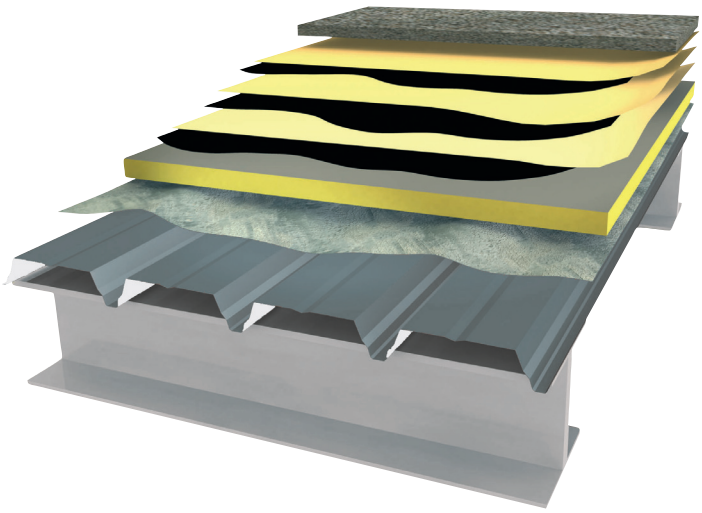
THICKNESS mm (in.)			
0.70 (0.027)	0.80 (0.031)	1.00 (0.039)	1.20 (0.047)

CHARACTERISTICS

The Hiansa MT-56 DECK profiled sheet has a 56 mm (2.20 in.) high-ribbed form with thicknesses up to 1.20 mm (0.047 in.).

Its useful width is 952 mm (37.48 in.) and its length ranges between 1600 mm (62.99 in.) and 14,000 mm (551.18 in.).
Available in both galvanized and pre-painted in a wide range of colors.

For those mounting solutions that require it, this sheet can be provided with holes drilled 3 mm in diameter, 5 mmbetween shafts and staggered 60°.



ROOFS - Deck

STEEL S220GD - YIELD STRENGTH 220 N/mm²
ADMISSIBLE LOADS (kp/m²) ACCORDING TO DISTANCE BETWEEN PURLINS (m)

1 OPENING																										PRESSURE LOAD
in (mm)	1.00	1.20	1.40	1.60	1.80	2.00	2.20	2.40	2.60	2.80	3.00	3.20	3.40	3.60	3.80	4.00	4.20	4.40	4.60	4.80	5.00	5.20	5.40	5.60	5.80	6.00
0.70	916	634	464	354	279	224	184	154	130	107	85	69	57	47	39	32	27	22	19	16	13	11	9	7	6	5
0.80	1056	731	535	408	321	259	213	178	150	125	100	81	66	55	45	38	32	26	22	19	16	13	11	9	7	6
1.00	1331	922	675	515	405	326	268	224	190	162	130	105	86	71	59	49	41	34	29	24	20	17	14	12	10	8
1.20	1593	1103	808	616	485	390	321	268	227	194	156	126	103	85	71	59	49	41	35	29	25	21	17	14	12	9
2 OPENINGS																										PRESSURE LOAD
in (mm)	1.00	1.20	1.40	1.60	1.80	2.00	2.20	2.40	2.60	2.80	3.00	3.20	3.40	3.60	3.80	4.00	4.20	4.40	4.60	4.80	5.00	5.20	5.40	5.60	5.80	6.00
0.70	939	650	476	363	286	230	189	158	134	114	99	86	76	67	59	53	47	43	39	35	32	29	26	24	22	20
0.80	1071	741	543	414	326	262	216	180	152	130	113	98	86	76	68	60	54	49	44	40	36	33	30	27	25	23
1.00	1333	923	676	515	405	327	268	224	190	162	140	122	107	95	84	75	67	61	55	50	45	41	37	34	31	29
1.20	1593	1103	808	616	485	390	321	268	227	194	168	146	128	113	101	90	80	72	65	59	54	49	45	41	37	34
3 OPENINGS																										PRESSURE LOAD
in (mm)	1.00	1.20	1.40	1.60	1.80	2.00	2.20	2.40	2.60	2.80	3.00	3.20	3.40	3.60	3.80	4.00	4.20	4.40	4.60	4.80	5.00	5.20	5.40	5.60	5.80	6.00
0.70	1175	814	596	455	358	289	238	199	169	145	125	109	96	85	76	67	57	48	42	36	31	27	23	20	17	15
0.80	1340	928	680	519	409	330	271	227	192	165	143	125	110	97	86	77	67	57	49	42	36	31	27	24	20	18
1.00	1668	1156	847	646	509	411	338	282	239	205	178	155	136	121	107	96	86	74	63	55	47	41	35	31	27	23
1.20	1994	1382	1012	773	608	491	404	338	286	245	212	185	163	144	128	115	103	89	76	66	57	49	43	37	32	28

MT-68 DECK

PROFILED SHEET

RAW MATERIAL
Steel

THICKNESSES mm (in.)
From 0.7 to 1.2
(0.027-0.047)

FINISH
Pre-painted/Galvanized

USEFUL WIDTH
880 mm

DRILLABLE

THICKNESS mm (in.)			
0.70 (0.027)	0.80 (0.031)	1.00 (0.039)	1.20 (0.047)

CHARACTERISTICS

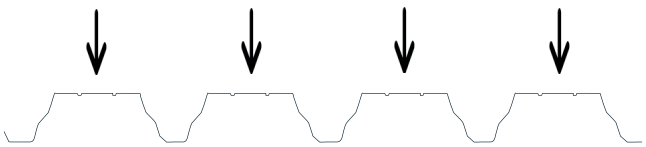
Hiansa's MT-68 DECK profiled sheet is specially designed for Deck roofs and has a high rib of 68 mm (2.68 in.), in thicknesses that can range from 0.7 mm (0.027 in.) to 1.2 mm (0.047 in.). Its useful width is 880 mm (34.65 in.) and its length ranges between 1600 mm (62.99 in.) and 14,000 mm (551.18 in.).

Available in both galvanized and pre-painted in a wide range of colors. For those mounting solutions that require it, this sheet can be provided with holes drilled 3 mm in diameter, 5 mm between shafts and staggered 60°.

ROOFS - Deck

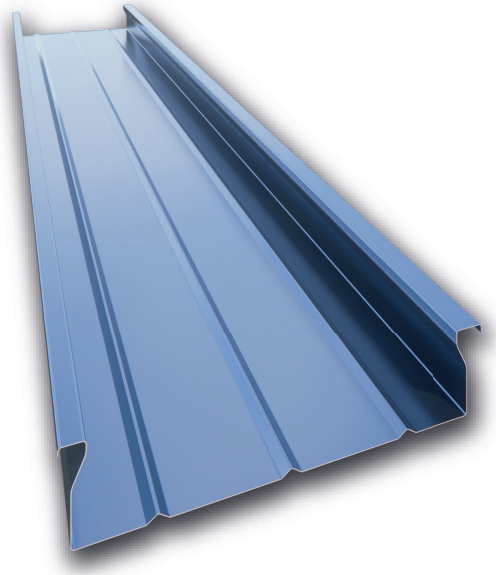
STEEL S220GD - YIELD STRENGTH 220 N/mm²
ADMISSIBLE LOADS (kp/m²) ACCORDING TO DISTANCE BETWEEN PURLINS (m)

1 OPENING																										PRESSURE LOAD
in (mm)	1.00	1.20	1.40	1.60	1.80	2.00	2.20	2.40	2.60	2.80	3.00	3.20	3.40	3.60	3.80	4.00	4.20	4.40	4.60	4.80	5.00	5.20	5.40	5.60	5.80	6.00
0.70	1728	1198	878	671	529	427	352	294	250	215	185	151	125	104	87	74	63	53	46	40	34	30	26	22	19	17
0.80	1977	1371	1005	768	605	489	402	337	286	246	213	174	144	120	101	85	72	62	53	46	39	34	30	26	22	19
1.00	2476	1716	1258	961	758	612	504	422	358	307	267	220	182	151	127	107	91	78	67	58	50	43	37	32	28	24
1.20	2968	2058	1509	1152	908	733	604	506	429	369	320	264	218	182	153	129	110	94	80	69	60	52	45	39	34	29
2 OPENINGS																										PRESSURE LOAD
in (mm)	1.00	1.20	1.40	1.60	1.80	2.00	2.20	2.40	2.60	2.80	3.00	3.20	3.40	3.60	3.80	4.00	4.20	4.40	4.60	4.80	5.00	5.20	5.40	5.60	5.80	6.00
0.70	1711	1186	870	664	524	423	348	292	247	212	184	161	142	126	112	101	91	82	75	68	62	57	52	48	44	41
0.80	1983	1375	1008	770	607	490	404	338	287	246	214	187	165	146	130	117	105	95	86	79	72	66	61	56	52	48
1.00	2476	1716	1258	961	758	612	504	422	358	307	267	233	205	182	163	146	131	119	108	98	90	82	76	70	64	60
1.20	2968	2058	1509	1152	908	733	604	506	429	369	320	280	246	218	195	175	157	142	129	118	108	99	91	84	77	71
3 OPENINGS																										PRESSURE LOAD
in (mm)	1.00	1.20	1.40	1.60	1.80	2.00	2.20	2.40	2.60	2.80	3.00	3.20	3.40	3.60	3.80	4.00	4.20	4.40	4.60	4.80	5.00	5.20	5.40	5.60	5.80	6.00
0.70	2141	1484	1089	832	656	530	437	366	311	267	232	203	179	159	142	128	115	104	94	81	71	63	55	49	43	38
0.80	2480	1720	1262	964	760	614	506	424	360	310	269	235	208	184	165	148	133	121	108	94	82	72	63	56	49	44
1.00	3097	2148	1575	1204	949	767	632	530	450	387	336	294	259	230	206	185	167	151	136	118	103	91	80	71	62	55
1.20	3713	2575	1889	1443	1138	920	758	635	540	464	402	352	311	276	246	221	200	181	163	142	124	109	96	85	75	67



BANDEJA BAN 90.380

SELF-SUPPORTING TRAY



RAW MATERIAL
Steel

THICKNESSES mm (in.)
Up to 1.2 mm
(0.047)

FINISH
Pre-painted/Galvanized

USEFUL WIDTH
380 mm (14.96 in.)

DRILLABLE

mm	0,6	0,7	0,8	1	1,2
kg/m²	7,87	9,18	10,5	13,12	15,75

Units: mm (in.)

SECTION PROFILE

CHARACTERISTICS

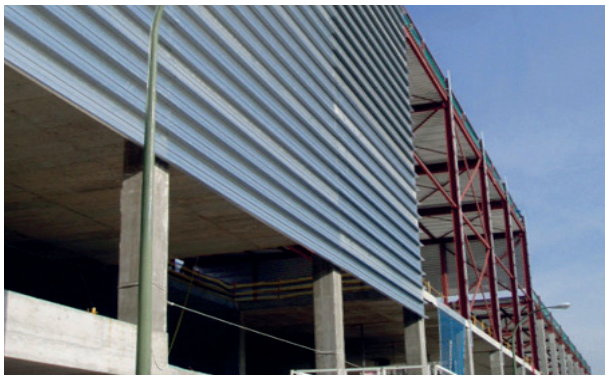
Ideal profile as an interior support for façades and roofs fixed to the main structure without the need for substructures. Characterized by its design and small size, this product offers excellent mechanical resistance and is very easy to assemble.
This model is available in numerous finishes: galvanized, pre-painted and aluzinc, with thicknesses ranging from 0.5 mm (0.019 in.) to 1.2 mm (0.047 in.).

Its usable width is 380 mm (14.96 in.), while the length can vary between 1600 mm (62.99 in.) and 14,000 mm (551.18 in.).

For mounting solutions that require it, this sheet is also available with holes drilled 3 mm in diameter, 5 mm between shafts and staggered 60° (R3T5). Other thicknesses, widths and lengths may be supplied on request.

BANDEJA BAN 90.380

SELF-SUPPORTING TRAY



ROOFS

ADMISSIBLE LOADS (kp/m2) ACCORDING TO DISTANCE BETWEEN PURLINS (m)

in (mm)		3	3.5	4	4.5	5	5.5	6	6.5
1 Opening	0.5	171	124	94	72	51	36	26	19
	0.6	208	151	114	86	61	44	32	23
	0.7	243	176	133	101	71	51	37	27
	0.8	278	202	152	115	81	58	42	31
	1	347	252	190	144	101	73	53	39
	1.2	416	302	228	172	121	87	63	48
2 Openings	0.5	171	124	94	73	58	47	38	32
	0.6	208	151	114	89	71	57	47	39
	0.7	243	176	133	103	82	67	55	45
	0.8	278	202	152	118	94	76	62	52
	1	347	252	190	148	118	95	78	65
	1.2	411	298	225	175	139	112	92	82
3 Openings	0.5	216	157	119	93	74	60	50	41
	0.6	262	191	144	113	90	73	60	50
	0.7	306	223	168	131	105	85	70	59
	0.8	350	254	193	150	120	97	80	67
	1	437	318	241	188	150	122	101	84
	1.2	518	377	285	222	177	144	119	97

FAÇADES

ADMISSIBLE LOADS (kp/m2) ACCORDING TO DISTANCE BETWEEN PURLINS (m)

in (mm)		3	3.5	4	4.5	5	5.5	6	6.5
1 Opening	0.5	177	130	100	78	57	43	33	26
	0.6	215	158	121	94	69	52	40	31
	0.7	251	185	141	110	80	60	46	36
	0.8	287	211	161	126	92	69	53	42
	1	359	264	202	157	114	86	66	52
	1.2	413	316	242	188	137	103	79	64
2 Openings	0.5	177	130	100	79	64	53	44	38
	0.6	215	158	151	96	78	64	54	46
	0.7	251	185	141	112	90	75	63	54
	0.8	287	211	161	128	103	85	72	61
	1	359	264	202	159	129	107	90	76
	1.2	426	313	239	189	153	127	106	93
3 Openings	0.5	221	163	125	98	80	66	55	47
	0.6	269	198	151	120	97	80	67	57
	0.7	314	231	177	140	113	93	78	67
	0.8	359	264	202	159	129	107	90	76
	1	449	330	252	199	161	133	112	96
	1.2	532	391	299	236	191	158	133	118

BANDEJA BAN 130.600

SELF-SUPPORTING TRAY

RAW MATERIAL
Steel

THICKNESSES mm (in.)
Up to 1.2 mm
(0.047)

FINISH
Pre-painted/Galvanized

USEFUL WIDTH
600 mm (23.62 in.)

DRILLABLE

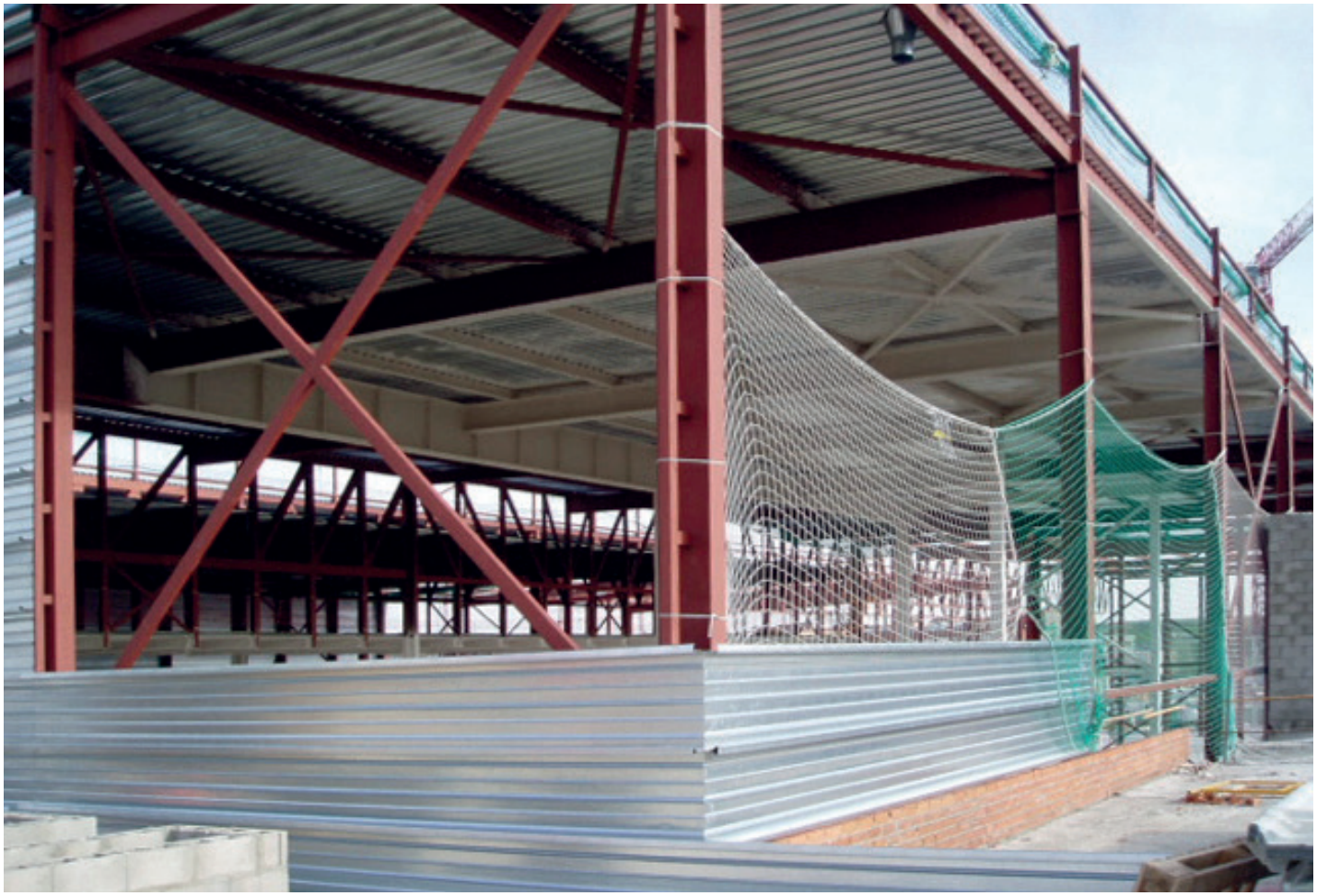
mm	0,7	0,8	1	1,2
kg/m²	9,34	10,67	13,33	16,00

SECTION PROFILE

CHARACTERISTICS

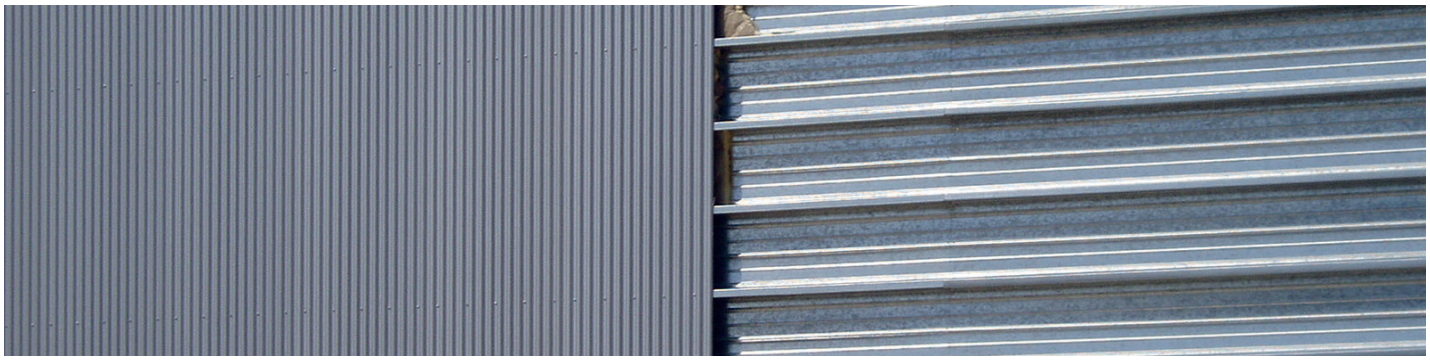
Ideal profile as a replacement solution for purlins both on the roof and on the façade, offering remarkable aesthetic results due to its small size and design. This product offers excellent mechanical resistance and is very easy to assemble, thereby saving completion time on site.
This model is available in numerous finishes: galvanized, pre-painted and aluzinc, with thicknesses ranging from 0.6 mm (0.023 in.) to 1.2 mm (0.047 in.).

Its usable width is 600 mm (23.62 in.), while the length can vary between 1600 mm (62.99 in.) and 14,000 mm (551.18 in.).
For mounting solutions that require it, this sheet is also available with holes drilled 3 mm in diameter, 5 mm between shafts and staggered 60° (R3T5). Other thicknesses, widths and lengths may be supplied on request.



BANDEJA BAN 130.600

SELF-SUPPORTING TRAY



ROOFS

ADMISSIBLE LOADS (kp/m2) ACCORDING TO DISTANCE BETWEEN PURLINS (m)

in (mm)		3	3.5	4	4.5	5	5.5	6	6.5
1 Opening	0.5	208	152	115	89	71	58	48	40
	0.6	268	195	148	115	92	75	62	51
	0.7	334	243	184	144	115	93	77	65
	0.8	400	292	221	173	138	112	93	78
	1	530	387	293	229	183	149	124	101
	1.2	653	476	361	282	226	184	153	128
2 Openings	0.5	208	152	115	89	71	58	48	40
	0.6	268	195	148	115	92	75	62	51
	0.7	334	243	184	144	115	93	77	65
	0.8	400	292	221	173	138	112	93	78
	1	530	387	293	229	183	149	124	104
	1.2	653	476	361	282	226	184	153	128
3 Openings	0.5	262	191	145	113	91	74	61	51
	0.6	337	245	186	146	117	95	79	66
	0.7	419	306	232	182	146	119	99	83
	0.8	503	367	279	218	175	143	119	100
	1	666	486	369	289	232	190	158	144
	1.2	820	599	455	356	286	234	194	163

FAÇADES

ADMISSIBLE LOADS (kp/m2) ACCORDING TO DISTANCE BETWEEN PURLINS (m)

in (mm)		3	3.5	4	4.5	5	5.5	6	6.5
1 Opening	0.5	214	157	121	95	77	64	54	46
	0.6	275	202	155	122	99	82	69	59
	0.7	342	251	192	152	123	102	85	73
	0.8	410	301	231	182	148	122	102	87
	1	542	398	305	241	195	161	136	114
	1.2	667	490	375	297	240	199	167	142
2 Openings	0.5	214	157	121	95	77	64	54	46
	0.6	275	202	155	122	99	82	69	59
	0.7	342	251	192	152	123	102	85	73
	0.8	410	301	231	182	148	122	102	87
	1	542	398	305	241	195	161	136	116
	1.2	667	490	375	297	240	199	167	142
3 Openings	0.5	268	197	151	119	96	80	67	57
	0.6	344	253	193	153	124	102	86	73
	0.7	427	314	240	190	154	127	107	91
	0.8	512	376	288	228	184	152	128	109
	1	678	498	381	301	244	202	169	144
	1.2	834	613	469	371	300	248	208	178

CURVED PROFILES

PRESENTATION

Hiansa offers its clients the possibility of curving any of its trapezoidal profiles using a forming process. This type of curved profiles offers a series of advantages:

- It offers endless architectural solutions for facades thanks to the minimum radius we can achieve.
- The strength of the profiles is increased for roofs with precast concrete beams.
- A perfectly watertight and aesthetic solution for any kind of roof.

MT-32

DISTANCE BETWEEN OPENINGS (m)							
e(mm)		4	4.5	5	5.5	6	6.5
Radius 3m	0.6	550	380	236.6	136.6	36.6	
	0.7	690	476	293.3	170	43.3	
	0.8	840	556.6	343.3	200	50	
Radius 5m	0.6	653.3	573.3	486.6	400	323.3	253.3
	0.7	810	710	603	500	403.3	323.3
	0.8	966.6	850	726.6	606.6	493.3	383.3
Radius 7m	0.6	543.3	513.3	476.6	433.3	390	343.3
	0.7	676.6	640	593.3	540	483.3	423.3
	0.8	806.6	763.3	706.6	646.6	580	513.3

MT-42

DISTANCE BETWEEN OPENINGS (m)							
e(mm)		4	4.5	5	5.5	6	6.5
Radius 3m	0.6	693.3	486.6	323.3	196.6	66.6	
	0.7	860	606.6	406.6	240	80	
	0.8	1036.6	733.3	463.3	273.3	90	
Radius 5m	0.6	796.6	703.3	600	500	406.6	326.6
	0.7	970	856.6	737.6	616.6	506.6	406.6
	0.8	1150	1020	880	770	610	493.3
Radius 7m	0.6	620	616.6	580	530	476.6	423.3
	0.7	760	753.3	706.6	646.6	583.3	520
	0.8	896.9	890	836.6	770	696.6	623.3

MT-52

DISTANCE BETWEEN												
e(mm)		4	4.5	5	5.5	6	6.5	7	7.5	8	8.5	9
Radius 3m	0.6	1510	1030	670	405	155						
	0.7	1850	1270	830	500	195						
	0.8	2210	1525	1000	610	235						
	1	2985	2080	1375	840	300						
Radius 5m	0.6	1705	1540	1335	1110	890	700	540	415	310	230	165
	0.7	2100	1900	1645	1355	1090	860	670	510	385	285	205
	0.8	2515	2280	1950	1610	1305	1035	805	620	470	350	250
	1	3355	3035	2595	2160	1760	1405	1100	850	650	485	350
Radius 7m	0.6	1265	1270	1250	1165	1055	945	820	700	585	490	405
	0.7	1555	1560	1535	1435	1300	1160	1005	855	720	600	500
	0.8	1860	1865	1840	1720	1565	1375	1195	1020	865	725	600
	1	2495	2505	2460	2300	2070	1830	1600	1375	1170	985	820
Radius 9m	0.6	970	995	1005	1005	985	925	855	780	715	635	555
	0.7	1190	1220	1235	1230	1215	1135	1050	970	875	775	680
	0.8	1425	1460	1475	1475	1450	1360	1265	1155	1035	920	810
	1	1910	1965	1985	1980	1950	1825	1680	1530	1385	1235	1095

PERFORATED PROFILES

APPLICATIONS

The lack of soundproofing of an interior space, both in the workplace and at home, can cause discomfort, stress, loss of concentration and hearing impairment problems to millions of people, every day.

According to the World Health Organisation, background noise levels shall not exceed 30 dB (A); a noise level of 35 dB (A) can cause difficulties when communicating, and, of course, when trying to sleep.

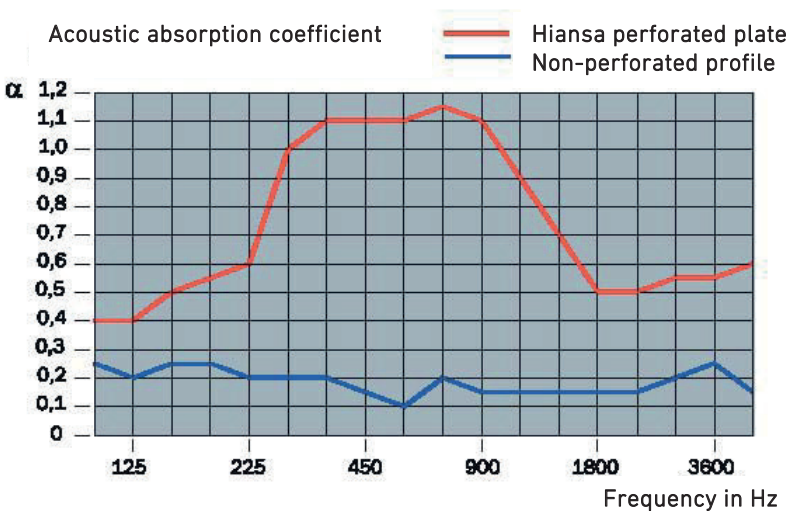
That's the theory, but the reality is very different for a large percentage of the world's population exposed to background noise levels of 55 dB (A), which is responsible for harming our hearing systems. Hiansa proposes technical solutions for sandwich roofs and facades in response to these problems, which lower background noise levels by using perforated steel plate profiles assembled with materials that have important acoustic absorption coefficients, such as fibre glass wool.

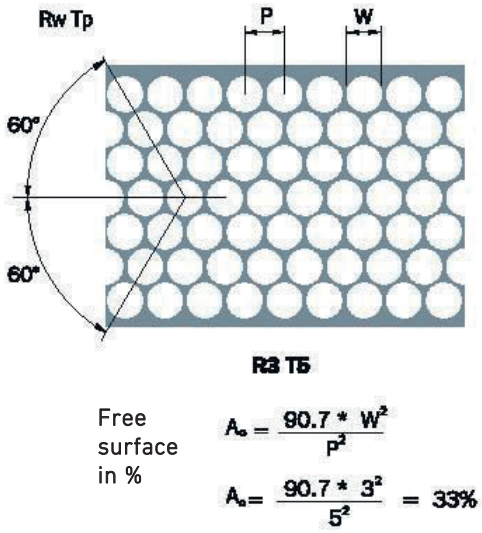
ACOUSTIC INSULATION

The perforation coefficient depends on the type of profile and the area perforated. The standard used by Hiansa is R3 T5.

SOUND ABSORBANT SOLUTIONS

It allows noise to be isolated and attenuated where required: for sport centres, large shopping centres, manufacturing warehouse with noise problems etc.





Free surface in %

$$A_o = \frac{90.7 * W^2}{P^2}$$

$$A_o = \frac{90.7 * 3^2}{5^2} = 33\%$$

STATIC VENTILATION SYSTEM

It is based on the input of fresh air through the fixed or adjustable blades located on low levels and the outlet of air at high levels through static air vents, which takes advantage of the wind forces and the differences in temperature, producing areas of low and high pressure. It is a system suitable for buildings with high spaces and with internal heat generation, where natural ventilation works effectively.

The system must be tailored to the needs of the extraction flow rates.

The static ventilation systems used at Hiansa are linear ones. They are manufactured in galvanised, pre-painted or stainless steel.

STATIC SYSTEM				
Model	Height (mm)	Weight (kg)	Neck (mm)	Flow rate
III	1050	27	330	460
VI	1150	47	570	1550
VIII	1550	82	750	3100

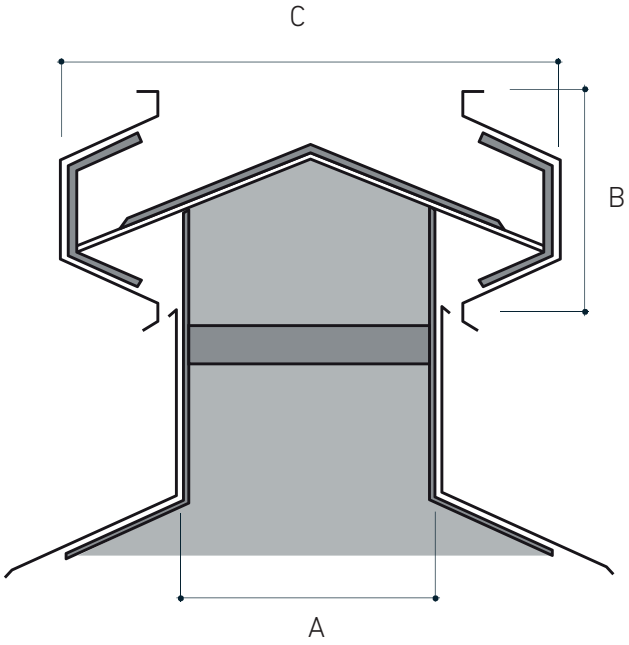
LINEAR STATIC VENTILATION

The air vents are located linearly, according to the guide vanes generated at the lintel (highest point of the warehouse). The supports need to be adapted to the pitch of the roof and the maintenance of them depends on how they are placed, which is usually at a few metres in height.

This is the most common system due to the possibilities of adapting it to all kinds of roofs and the low power consumption and maintenance.

It may be adapted to any type of panel, and is manufactured in various finished: galvanised, pre-painted, aluzinc in 0.6 mm thicknesses. These air vents weigh 18 kg/m for the HV-250 model and 21 kg/m for the HV-500 model.

Type	A	B	C
HV-250	235	385	564
HV-500	466	385	800



THERMAL CHANGE / RENEWALS			
Warehouse or building activity	Recommended temperature difference °C	Minimum	Maximum
Assembly workshop, warehouses, sports centre	5	4	8
Manufacturing workshops, welding, machine rooms	10	6	10
Industrial processes with small furnaces	15	10	15
Steel processes, ironworks, large furnaces	20	15	20
Foundries, boiler room	25	20	30

EXTRACTION FLOW RATES

Temperature difference between the inlet and the outlet air temperature in degrees Celsius	Effective height between the level of the fan and air input level in metres	Extraction flow per lm of fan in m^3/h	
		HV-250	HV-500
6°	7	600	1200
	12	775	1550
10°	7	700	1530
	12	995	1990
15°	7	915	1870
	12	1220	2440
20°	7	1075	2150
	12	1410	2820

STANDARD ORGANIC COATINGS

The line of colors with standard organic coating in polyester consists of 19 shades, 17 solid colors plus 2 different shades of metallic gray. The same line of shades are applied to other organic coatings depending on the environmental conditions and the environment of the building.

1000 Oyster white*

2000 Sand

2005 Tobacco*

3001 Light Green*

9005 Deep Black

1006 Pyrenees White

2002 Bidasoa Cream

3000 Navarra Green

4000 Lake Blue

4001 Sky Blue*

4009 Baracaldo Blue*

5001 Pearl Gray

7001 Teja Red

7004 Coral red*

4002 Navy blue*

Ral 5008 Ardoise blue*

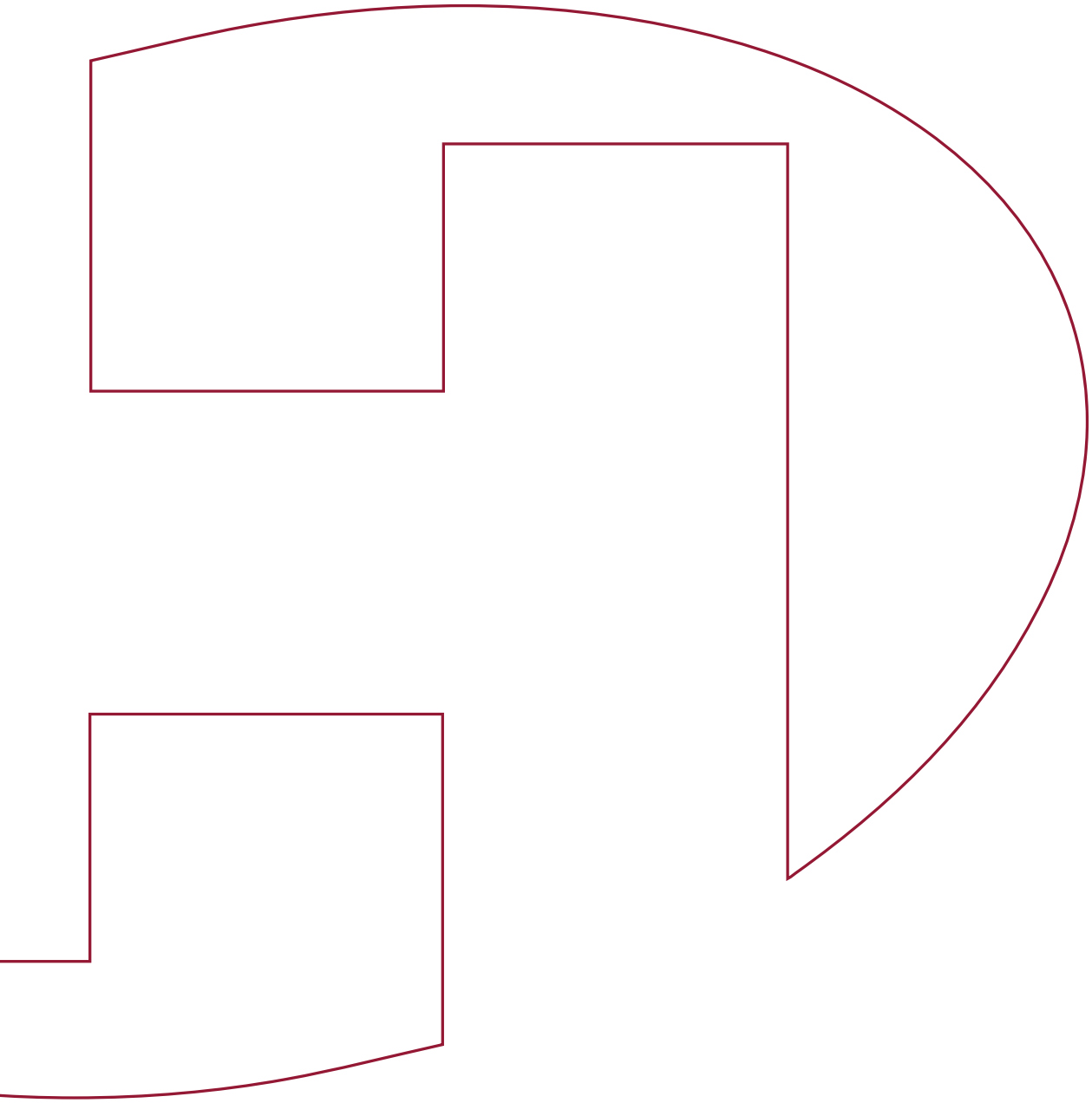
Ral 9006 Silver metallic

7002 Baztán Red

Ral 9007 Hiansa Metallic

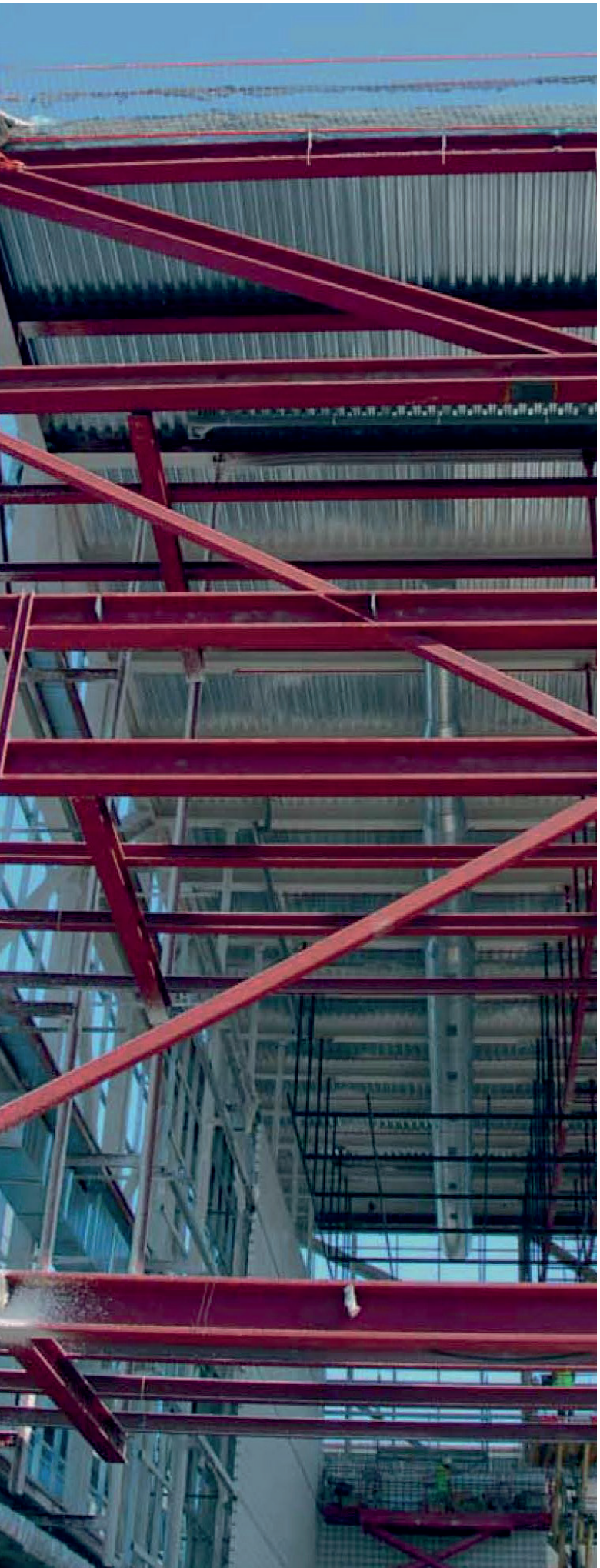
*These colors are always on request.

For colors not included in the standard range, consult our sales department.
Although we have used the most advanced printing techniques to produce this catalog, we cannot guarantee that the colors are 100% accurate with respect to reality due to the difference in printing media and system.



COMPOSITE SLABS

COMPOSITE SLABS



INTRODUCTION

Composite slabs are the ideal constructive solution for all those projects that need both the highest technical and mechanical properties, such as speed of execution and guarantees. Thanks to its superior characteristics, composite slabs can be adapted to any type of building (industrial, commercial, residential, sports). They present significant economic benefits, especially when considered at the start of a project: they decrease the average depth of the slab, and therefore reduce the weight, which translates into a reduction of the structural sections (pillars, beams, foundations). The use of this technology also responds to certain inevitable demands in modern buildings, such as providing office services, the use of false ceilings and better planning of the different phases of implementation.

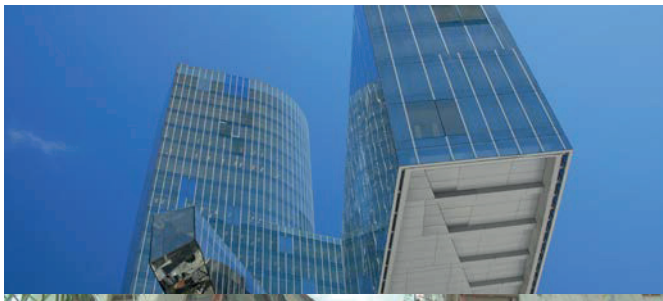
COMPOSITE SLABS

The basis of composite slabs lies in the technology used to enhance the adhesion between the formed steel plate and the concrete. This technology takes advantage of the collaboration between the two materials that make up the slab, supporting the tensions generated by the loads. Mechanical adhesion of the two components is done through the indentations in the sloping flanks of the galvanised steel profile. Chemical adhesion alone would not be sufficient to ensure an efficient connection, which is what makes the composite slab respond like a mixed structure.

FEATURES AND BENEFITS

Once complete, the slab has the following features:

- It acts as a work platform during construction, improving safety and providing protection against falling objects.
- It replaces wooden formwork in supporting the concrete pour, which would have been lost.
- It helps to stabilise the framework if it is a metallic structure, reducing the need for horizontal struts.
- It supports loads during concreting, in certain spans and depths. Above a certain slenderness limit, the sheet needs to be underpinned before the concrete is poured. The structural engineer must ensure that the required intermediate supports are placed as indicated in the overload table.
- It facilitates movement on the floors during construction, as is does not need the supports usually required with conventional formwork.
- It works in collaboration with the concrete, thanks to the secure connection between the two materials, which is achieved with the plate bosses and indentations. The metallic profile completely or partially replaces tensile slab reinforcement that is usually used. The use of additional tensile rebar has not been considered in this manual: however the structural engineer may include it to increase the fire resistance and strength of the slab.
- A composite slab with connectors can be used to form a mixed beam. This leads to a significant reduction in the depth of the slab, and therefore a reduction in the weight of the metallic profiles that support the slab, and the building structure and foundations in general. It has clear economic benefits, both in materials and construction time.
- The longitudinal ribs of the profiled plate mean that installations and channels can be included inside the building.
  It is a very economic and quick constructive system.

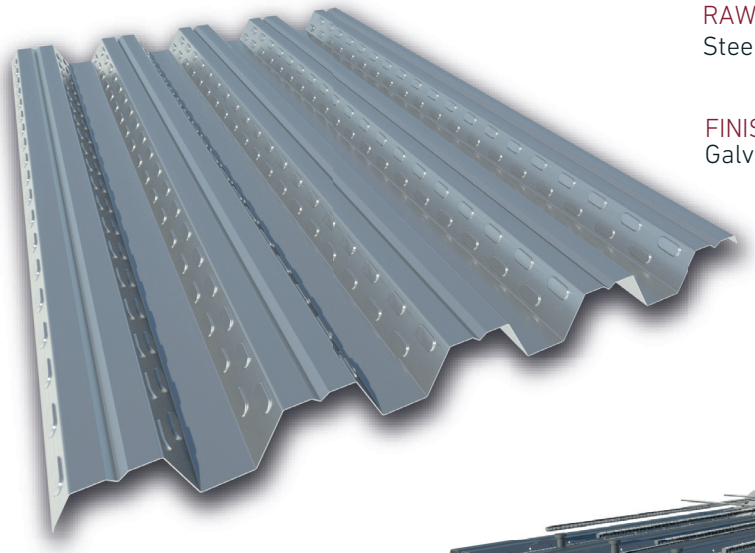


CHARACTERISTICS

The Hiansa composite slabs are particularly suited for large scale buildings with metallic structures. They are a perfect fit for different types of building such as:

- Industrial buildings
- Office and tertiary buildings
- Large public buildings
- Large areas and warehouses
- Shopping and leisure centres

COMPOSITE SLAB MT-60

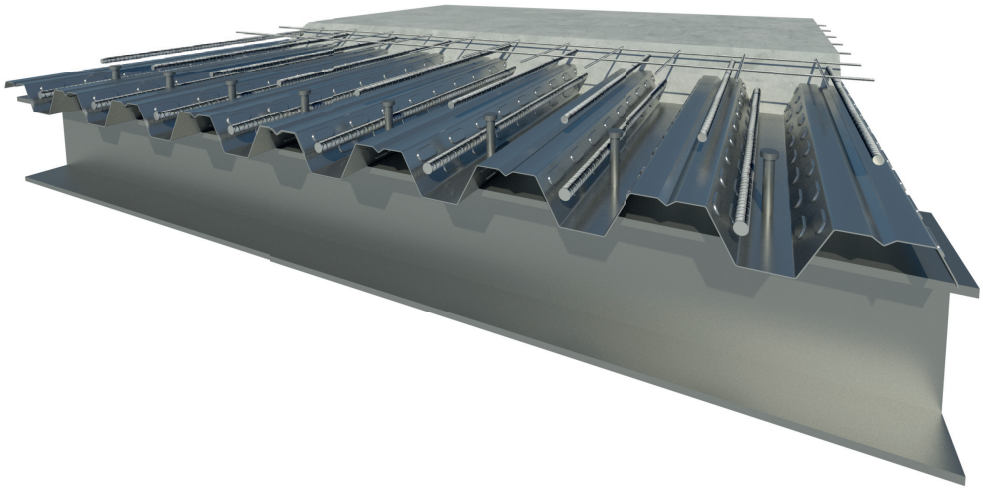


RAW MATERIAL
Steel

FINISH
Galvanized

THICKNESSES mm (in.)
0.75 to 1.2
(0.029-0.047)

USEFUL WIDTH
820 mm (32.28 in.)



CHARACTERISTIC

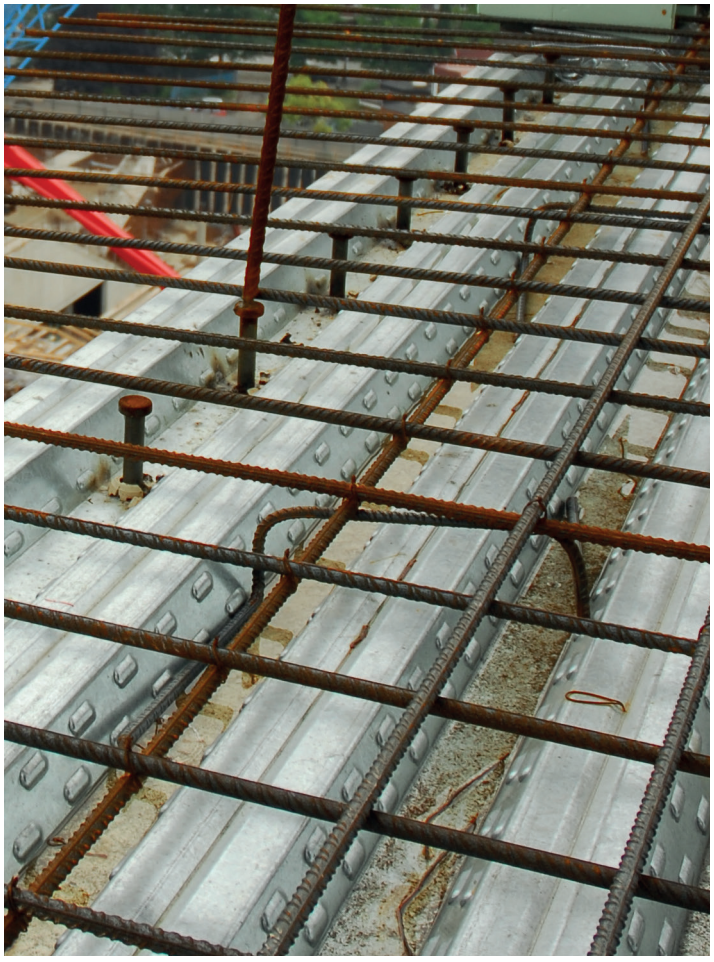
The M T-60 panel has been developed together with the Structures Group of the Department of Continuing Resources of the Advanced College of Engineers of Seville, as part of its work with AICIA - the Investigation and Industrial Cooperation Association of Andalusia.

The experimental tests carried out are according to the requirements of Eurocode 4 and 3, the only reference regulations and mandatory short term regulations on the European level.

The values published in the tables refer to the admissible static overload and the reinforcement section provided for negative bending moment in the case of intermediate supports. The limit state tests carried out on different types of slabs have allowed the characteristic para meters "m" and "k" to be calculated,
which define the reference straight section of the M T -60 slab. This straight section provides the value of admissible overload depending on the thickness of the sheet and the depth of the slab. After obtaining these values, in accordance with the testing methods described in EC4, they have been tested through the required verification tests.

	THICKNESS (mm)			
	0.75 (0.029)	0.80 (0.031)	1.00 (0.039)	1.20 (0.047)
P (kg/m²)	8.97	9.57	11.97	14.36
I (cm4/m)	58.75	60.38	75.47	90.56
W (cm3/m) - upper fiber	17.79	18.56	23.14	27.68
Ap (mm2/m)	1043.00	1081.85	1352.15	1622.45

P=profile weight per square meter I=profile inertia per linear meter W=resistant module profile per linear meter
Ap=useful section of steel per line



MT-60 - LAYOUT 2 OPENINGS - 3 SUPPORTS STATIC OVERLOADS (daN/m2) **THICKNESS 0.8 mm**

SPAN (m) \ H (cm)	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25
2.00	1076	1237	1348	1451	1552	1651	1749	1844	1938	2031	2121	2209	2296	2381	2465	2546
2.20	904	1038	1173	1299	1389	1477	1564	1649	1733	1814	1895	1973	2050	2126	2199	2271
2.40	771	886	1001	1116	1231	1333	1410	1487	1561	1634	1706	1776	1845	1836	1929	2023
2.60	667	767	866	966	1065	1165	1265	1349	1416	1218	1296	1374	1452	1530	1608	1686
2.80	584	671	758	845	933	1020	826	892	958	1023	1089	1154	1220	1285	1351	1416
3.00	516	421	476	532	587	643	698	754	809	865	920	975	1031	1086	1142	1197
3.20	309	357	404	451	498	545	592	639	687	734	781	828	875	922	969	1016
3.40	263	303	343	383	423	464	504	544	584	624	664	705	745	785	825	865
3.60	223	258	292	326	360	395	429	463	498	532	566	600	635	669	703	738
3.80	190	219	248	278	307	336	365	395	424	453	482	512	541	570	599	629
4.00	161	186	211	236	261	285	310	335	360	385	410	435	460	485	510	535
4.20	136	157	178	199	220	242	263	284	305	326	348	369	390	411	432	454
4.40	114	132	150	167	185	203	221	239	257	275	293	311	329	347	365	383
4.60	94	109	124	140	155	170	185	200	215	230	245	260	275	290	305	320
4.80	77	90	102	115	127	140	152	165	177	190	202	215	227	240	252	265
5.00	62	72	83	93	103	113	124	134	144	154	164	175	185	195	205	216

MT-60 - LAYOUT 2 OPENINGS - 3 SUPPORTS STATIC OVERLOADS (daN/m2) **THICKNESS 1.0 mm**

SPAN (m) \ H (cm)	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25
2.00	1231	1337	1441	1544	1644	1743	1840	1936	2029	2121	2211	2299	2385	2469	2552	2633
2.20	1068	1200	1292	1384	1473	1561	1647	1732	1815	1896	1976	2054	2131	2205	2279	2350
2.40	909	1044	1168	1250	1330	1409	1486	1562	1636	1709	1781	1850	1919	1985	2051	2115
2.60	785	901	1018	1135	1210	1281	1350	1419	1486	1551	1615	1678	1739	1799	1858	1915
2.80	685	787	889	991	1093	1171	1234	1296	1356	1415	1473	1416	1497	1577	1657	1738
3.00	605	694	784	874	964	794	862	930	999	1067	1135	1204	1272	1340	1408	1477
3.20	538	618	698	561	619	678	736	794	853	911	970	1028	1087	1145	1203	1262
3.40	482	380	430	480	531	581	631	681	731	782	832	882	932	982	1032	1083
3.60	283	326	370	413	456	499	542	586	629	672	715	758	802	845	888	931
3.80	243	280	318	355	392	430	467	504	541	579	616	653	690	728	765	802
4.00	209	241	273	305	338	370	402	434	466	498	531	563	595	627	659	691
4.20	179	207	235	262	290	318	346	373	401	429	457	484	512	540	568	595
4.40	153	177	201	225	249	273	297	320	344	368	392	416	440	464	488	512
4.60	130	151	171	192	212	233	253	274	294	315	335	356	377	397	418	438
4.80	110	128	145	163	180	198	215	233	250	268	285	303	320	338	356	373
5.00	92	107	122	137	152	167	182	196	211	226	241	256	271	286	300	315

MT-60 - LAYOUT 2 OPENINGS - 3 SUPPORTS STATIC OVERLOADS (daN/m2) **THICKNESS 1.2 mm**

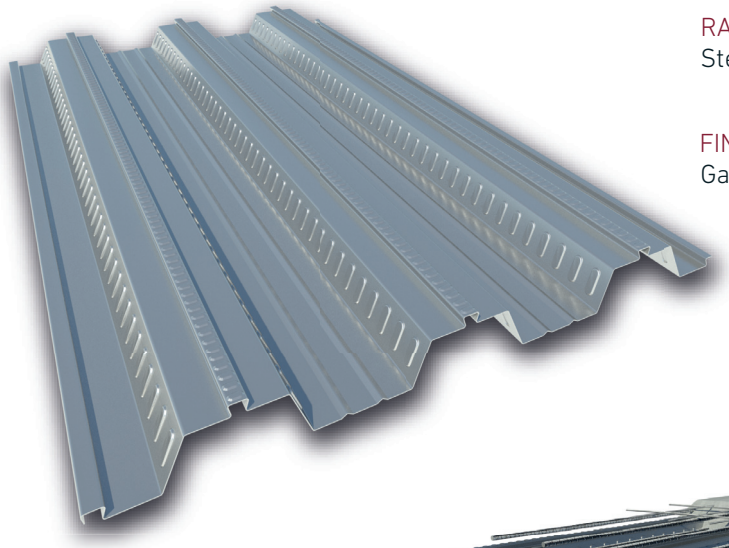
SPAN (m) \ H (cm)	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25
2.00	1321	1427	1531	1633	1733	1831	1928	2023	2116	2207	2296	2384	2470	2554	2636	2716
2.20	1187	1281	1373	1464	1553	1641	1727	1811	1893	1974	2054	2131	2208	2282	2355	2426
2.40	1060	1160	1242	1324	1404	1482	1559	1634	1708	1781	1852	1921	1989	2055	2120	2184
2.60	913	1050	1132	1205	1277	1348	1417	1485	1552	1617	1681	1743	1804	1864	1922	1979
2.80	796	915	1034	1103	1169	1233	1296	1357	1418	1476	1534	1591	1646	1700	1752	1803
3.00	701	806	910	1015	1075	1133	1190	1246	1210	1293	1376	1458	1508	1557	1605	1651
3.20	623	716	809	901	992	1046	896	967	1038	1110	1181	1252	1323	1394	1466	1518
3.40	558	641	724	807	649	711	772	834	895	957	1018	1080	1141	1203	1264	1326
3.60	503	578	455	508	562	615	668	722	775	828	882	935	988	1041	1095	1148
3.80	302	348	394	441	487	533	580	626	672	719	765	811	858	904	950	997
4.00	261	302	342	382	423	463	504	544	584	625	665	705	746	786	826	867
4.20	227	262	297	332	367	402	438	473	508	543	578	614	649	684	719	754
4.40	196	227	258	288	319	350	380	411	442	472	503	534	564	595	626	656
4.60	170	196	223	250	276	303	330	357	383	410	437	463	490	517	543	570
4.80	146	169	193	216	239	262	285	309	332	355	378	401	425	448	471	494
5.00	125	145	165	186	206	226	246	266	286	306	326	346	366	387	407	427

HA-25 - fck=25N/mm2 - Sheet - fy=220N/mm2 - Sag L/250 - 0% coef. negative redistribution

Shore up center of the opening

For other values, contact the **Technical Department** to evaluate the most optimal solution in each case and receive personalized advice.

COMPOSITE SLAB MT-76

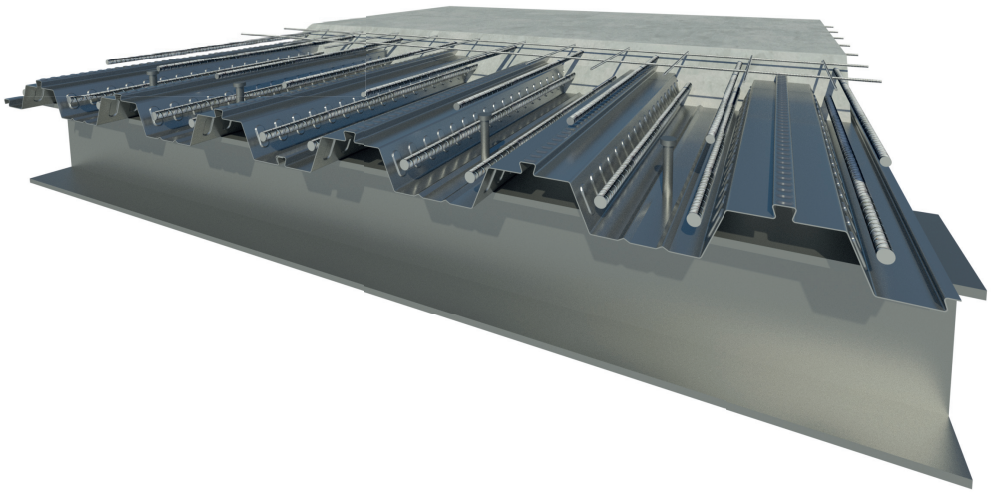


RAW MATERIAL
Steel

FINISH
Galvanized

THICKNESSES mm (in.)
0.75 to 1.2
(0.029-0.047)

USEFUL WIDTH
880 mm (34.65 in.)



CHARACTERISTIC

Characterised by the height of the profile, including dovetails, it is especially recommended for buildings with a metal structure, where size and space take on added importance, such as:

• Industrial buildings, • Office buildings, • Hospitals • Leisure and educational centres, Shopping centres, etc.

The technical characteristics of the MT-76 have been developed in collaboration with David García Carrera, Architect, Executive Vice President of ACE (Association of Structural Consultants), and Director of the Department of Physics and Structures of the UIC (International University of Catalonia), preceded by numerous tests carried out at the LGAI Technological Centre (General Testing and Research Laboratory of the Generalitat of Catalonia).

The results tables for the use of the M T-76 composite slab have been developed based on the Institute of Construction Technology of Catatonia operation manual and in accordance with the specifications provided in Eurocode 4, Part 1-1, for projects with mixed concrete and Steel structures.

	THICKNESS mm (in.)			
	0.75 (0.029)	0.80 (0.031)	1.00 (0.039)	1.20 (0.047)
P (kg/m²)	8.36	8.92	11.15	13.38
I (cm4/m)	75.58	89.00	111.10	133.00
W (cm3/m) - upper fiber	24.01	27.30	33.80	40.50
Ap (mm2/m)	998.00	1135.30	1411.80	1694.10

P=profile weight per square meter I=profile inertia per linear meter W=resistant module profile per linear meter
Ap=useful section of steel per line

MT-76 - LAYOUT 2 OPENINGS - 3 SUPPORTS STATIC OVERLOADS (daN/m2) **THICKNESS 0.8 mm**

SPAN (m) \ H (cm)	12	13	14	15	16	17	18	19	20	21	22	23	24	25
2.00	1642	1757	1870	1981	2091	2198	2303	2407	2508	2607	2705	2800	2894	2985
2.20	1474	1576	1677	1777	1874	1970	2063	2155	2246	2334	2421	2505	2588	2669
2.40	1334	1426	1517	1606	1694	1779	1864	1946	2027	2106	2184	2260	2334	2406
2.60	1215	1299	1381	1462	1541	1618	1694	1769	1842	1913	1983	2052	2119	2184
2.80	1114	1190	1265	1338	1410	1480	1549	1617	1683	1748	1811	1873	1934	1993
3.00	962	1073	1164	1231	1296	1361	1424	1485	1546	1605	1663	1719	1774	1828
3.20	835	932	1028	1124	1197	1256	1314	1370	1426	1480	1532	1584	1634	1683
3.40	729	814	898	983	1067	1151	1217	1269	1319	1369	1417	1465	1511	1556
3.60	640	714	789	863	937	1011	1086	1160	1225	1271	1315	1359	1401	1442
3.80	564	629	695	761	826	892	958	1023	1089	1154	1220	1264	1303	1341
4.00	498	556	614	673	731	789	847	905	964	1022	1080	1138	1196	1249
4.20	441	493	545	596	648	700	752	803	855	907	959	1010	1062	1114
4.40	391	438	484	530	576	622	668	714	760	806	853	899	945	991
4.60	348	389	430	471	512	554	595	636	677	718	759	801	842	883
4.80	309	346	383	419	456	493	530	567	603	640	677	714	750	787
5.00	275	308	340	373	406	439	472	505	538	571	604	637	669	702
5.20	244	273	303	332	362	391	420	450	479	509	538	568	597	626
5.40	205	243	269	295	322	348	374	400	427	453	479	506	532	558
5.60	146	215	239	262	286	309	332	356	379	403	426	450	473	497
5.80	97	169	211	232	253	274	295	316	337	358	378	399	420	441
6.00	56	115	186	205	223	242	260	279	298	316	335	354	372	391

MT-76 - LAYOUT 2 OPENINGS - 3 SUPPORTS STATIC OVERLOADS (daN/m2) **THICKNESS 1.0 mm**

SPAN (m) \ H (cm)	12	13	14	15	16	17	18	19	20	21	22	23	24	25
2.00	1772	1887	2000	2110	2219	2326	2430	2533	2634	2732	2829	2924	3016	3107
2.20	1592	1695	1795	1894	1990	2085	2179	2270	2360	2447	2533	2617	2700	2780
2.40	1442	1534	1625	1713	1800	1885	1969	2051	2131	2210	2287	2362	2436	2508
2.60	1315	1399	1480	1560	1639	1716	1792	1866	1938	2009	2078	2146	2213	2277
2.80	1207	1282	1357	1429	1501	1571	1639	1707	1772	1837	1900	1961	2021	2080
3.00	1112	1182	1249	1316	1381	1445	1508	1569	1629	1687	1745	1801	1855	1909
3.20	1030	1093	1156	1217	1277	1335	1392	1448	1503	1557	1609	1660	1710	1759
3.40	904	1008	1073	1129	1184	1238	1291	1342	1392	1442	1490	1536	1582	1627
3.60	795	888	980	1051	1102	1152	1200	1248	1294	1339	1383	1426	1468	1509
3.80	703	785	866	948	1028	1074	1119	1163	1206	1248	1288	1328	1366	1404
4.00	623	696	769	842	914	987	1046	1087	1127	1165	1203	1239	1275	1309
4.20	555	620	685	750	814	879	944	1009	1055	1090	1125	1159	1192	1224
4.40	495	553	611	669	727	785	844	902	960	1018	1055	1086	1116	1146
4.60	442	494	546	599	651	703	755	807	859	912	964	1016	1048	1075
4.80	396	442	489	536	583	630	677	724	771	818	864	911	958	1005
5.00	354	396	439	481	523	565	607	650	692	734	776	818	861	903
5.20	317	355	393	431	470	508	546	584	622	660	698	736	774	812
5.40	253	319	353	387	421	456	490	524	559	593	627	661	696	730
5.60	188	282	316	347	378	409	440	471	502	533	564	595	625	656
5.80	133	211	283	311	339	367	395	423	451	478	506	534	562	590
6.00	87	152	234	279	304	329	354	379	404	429	454	479	504	529

MT-76 - LAYOUT 2 OPENINGS - 3 SUPPORTS STATIC OVERLOADS (daN/m2) **THICKNESS 1.2 mm**

SPAN (m) \ H (cm)	12	13	14	15	16	17	18	19	20	21	22	23	24	25
2.00	1902	2016	2128	2238	2346	2451	2555	2657	2757	2855	2951	3045	3137	3227
2.20	1710	1812	1912	2009	2105	2200	2292	2383	2472	2559	2644	2727	2809	2889
2.40	1550	1642	1731	1819	1905	1990	2073	2154	2234	2312	2388	2463	2536	2607
2.60	1415	1498	1579	1658	1736	1812	1887	1961	2033	2103	2172	2239	2305	2369
2.80	1299	1374	1448	1520	1591	1660	1728	1795	1860	1924	1986	2047	2107	2165
3.00	1198	1267	1334	1400	1465	1528	1590	1651	1711	1769	1825	1881	1935	1988
3.20	1110	1173	1235	1296	1355	1413	1470	1525	1580	1633	1685	1735	1785	1833
3.40	1033	1091	1148	1203	1258	1311	1363	1414	1464	1513	1561	1607	1652	1696
3.60	964	1017	1070	1121	1172	1221	1269	1316	1362	1407	1450	1493	1534	1575
3.80	844	942	1000	1048	1094	1140	1184	1228	1270	1311	1351	1391	1429	1466
4.00	751	838	925	982	1025	1067	1108	1148	1187	1225	1263	1299	1334	1368
4.20	670	748	826	905	962	1001	1039	1076	1113	1148	1182	1216	1248	1280
4.40	599	670	740	810	881	941	976	1011	1045	1077	1109	1140	1170	1199
4.60	538	601	664	728	791	854	917	951	983	1013	1042	1071	1099	1126
4.80	483	540	597	655	712	769	826	883	926	954	981	1008	1034	1058
5.00	435	487	538	590	641	693	745	796	848	899	925	950	973	996
5.20	365	439	485	532	579	625	672	719	766	812	859	896	918	939
5.40	281	396	438	480	523	565	607	650	692	734	777	819	861	886
5.60	211	313	395	434	472	511	549	587	626	664	703	741	779	818
5.80	153	238	344	392	427	461	496	531	566	601	636	670	705	740
6.00	104	175	264	354	385	417	449	480	512	543	575	607	638	670

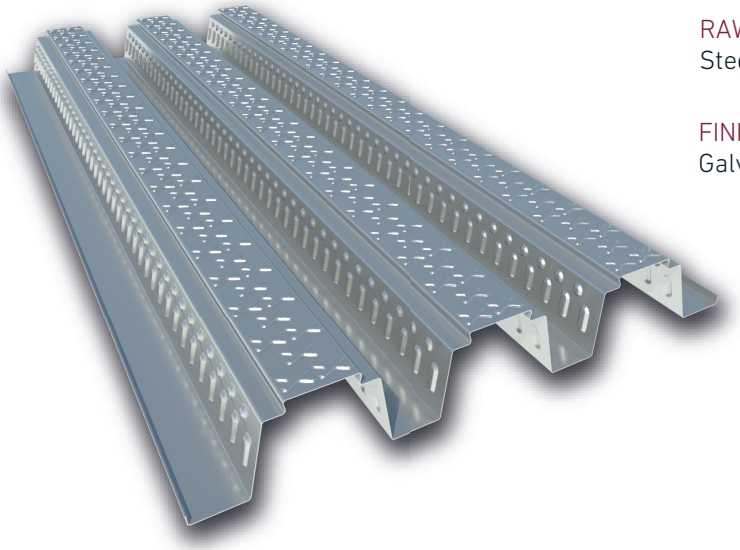
HA-25 - fck=25N/mm2 - Sheet - fy=220N/mm2 - Sag L/250 - 0% coef. negative redistribution

Shore up center of the opening

For other values, contact the **Technical Department** to evaluate the most optimal solution in each case and receive personalized advice.

FORJADO MT-100

COMPOSITE SLABS

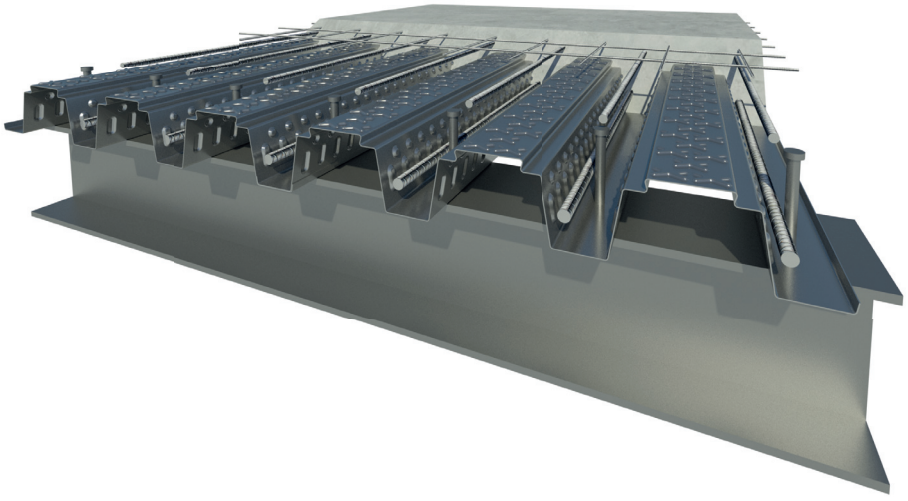


RAW MATERIAL
Steel

FINISH
Galvanized

THICKNESSES mm (in.)
0.75 to 1.2
(0.029-0.047)

USEFUL WIDTH
675 mm (26.57 in.)



CHARACTERISTIC

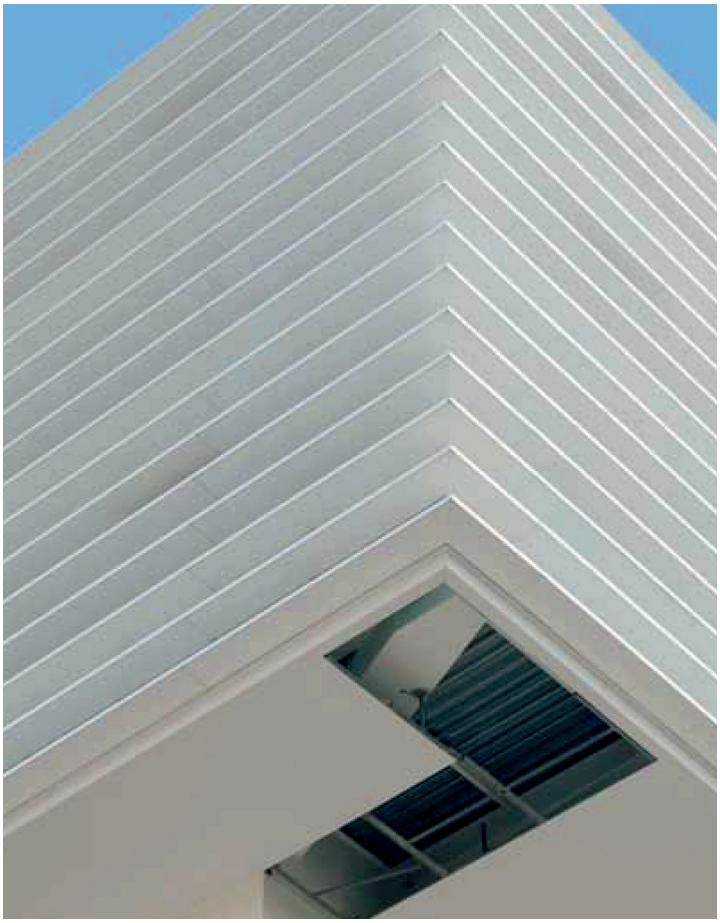
The MT-IIYI composite slab profile (named due to the 100 mm rib height) is especially suitable for large-scale buildings with metal structures and significant spans between supports. This panel design adapts perfectly to building types such as:

• Industrial buildings, • Office and tertiary buildings, • Large public buildings, • Large areas and warehouses, • Shopping and leisure centres, • centres

The MT-IIYI panel has developed together with the Structures Group of the Department of Continuing Resources of the Advanced College of Engineers of Seville, as part of its work with AICIA- the Investigation and industrial Cooperation Association of Andalusia. The tests carried out are according to the requirements of Eurocode 4 and 3, the only reference short term regulations on the European level.
The values published in the tables refer to the admissible static overload and the reinforcement section provided for negative bending moment in the case of intermediate supports.

	THICKNESS mm (in.)			
	0.75 (0.029)	0.80 (0.031)	1.00 (0.039)	1.20 (0.047)
P (kg/m²)	10.90	11.63	14.54	17.44
I (cm4/m)	182.64	195.78	244.81	294.72
W (cm3/m) - upper fiber	31.95	34.50	43.09	52.06
Ap (mm2/m)	1297	1385	1732	2078

P=profile weight per square meter I=profile inertia per linear meter W=resistant module profile per linear meter
Ap=useful section of steel per line



MT-100 - LAYOUT 2 OPENINGS - 3 SUPPORTS STATIC OVERLOADS (daN/m2) **THICKNESS 0.8 mm**

SPAN (m) \ H (cm)	14	15	16	17	18	19	20	21	22	23	24	25
2.00	1321	1418	1492	1564	1635	1705	1773	1840	1905	1969	2032	2093
2.20	1185	1271	1336	1400	1463	1524	1584	1643	1701	1757	1812	1865
2.40	1072	1149	1207	1264	1320	1374	1427	1479	1530	1580	1628	1676
2.60	976	1046	1098	1148	1198	1247	1294	1341	1386	1430	1473	1515
2.80	894	957	1004	1050	1094	1138	1180	1222	1262	1302	1340	1378
3.00	823	881	923	964	1004	1043	1081	1119	1155	1191	1225	1259
3.20	761	813	852	889	925	960	995	1029	1061	1093	1124	1154
3.40	706	754	789	823	855	888	919	949	979	1007	1035	1062
3.60	657	702	733	764	773	823	851	878	905	931	956	981
3.80	614	654	569	623	678	732	786	815	839	863	886	907
4.00	405	453	501	548	596	644	691	739	780	801	822	842
4.20	357	399	441	483	525	567	609	651	693	735	764	782
4.40	316	353	390	427	464	501	538	575	612	649	686	723
4.60	279	312	344	377	410	442	475	507	540	573	605	638
4.80	247	275	304	333	362	390	419	448	477	505	534	563
5.00	218	243	269	294	319	345	370	395	420	446	471	496
5.20	192	215	237	259	281	304	326	348	370	392	415	437
5.40	170	189	208	228	247	267	286	306	325	345	364	384
5.60	149	166	183	200	217	234	251	268	285	302	319	336
5.80	130	145	160	174	189	204	219	233	248	263	278	292
6.00	113	126	139	151	164	177	190	202	215	228	240	253
6.20	98	109	120	130	141	152	163	174	185	196	206	217
6.40	84	93	102	111	121	130	139	148	157	166	176	185
6.60	71	79	86	94	101	109	117	124	132	140	147	155
6.80	59	65	72	78	84	90	96	103	109	115	121	127
7.00	48	53	58	63	68	73	78	82	87	92	97	102

MT-100 - LAYOUT 2 OPENINGS - 3 SUPPORTS STATIC OVERLOADS (daN/m2) **THICKNESS 1.0 mm**

SPAN (m) \ H (cm)	14	15	16	17	18	19	20	21	22	23	24	25
2.00	1314	1460	1604	1705	1775	1844	1911	1976	2041	2103	2165	2225
2.20	1178	1310	1439	1529	1590	1650	1709	1767	1824	1879	1932	1985
2.40	1066	1184	1300	1381	1436	1489	1542	1593	1643	1691	1739	1785
2.60	970	1078	1184	1257	1305	1353	1400	1445	1490	1533	1575	1616
2.80	889	987	1084	1150	1194	1236	1278	1319	1358	1397	1435	1471
3.00	818	908	997	1057	1097	1135	1172	1209	1245	1279	1313	1346
3.20	756	839	921	976	1012	1046	1080	1113	1145	1176	1207	1236
3.40	701	778	854	905	937	968	999	1028	1057	1085	1113	1139
3.60	652	724	794	841	870	899	926	953	979	1005	1029	1053
3.80	609	676	741	784	811	837	862	886	910	932	954	976
4.00	570	632	693	733	757	781	803	825	847	867	887	906
4.20	534	593	650	618	673	727	751	771	790	808	826	844
4.40	502	453	501	550	598	646	694	721	738	755	771	787
4.60	361	404	446	489	532	575	618	660	691	706	721	734
4.80	322	360	398	436	474	512	550	588	626	661	674	687
5.00	287	321	355	389	422	456	490	524	558	592	626	643
5.20	256	286	316	346	377	407	437	467	497	528	558	588
5.40	228	255	282	309	336	362	389	416	443	470	497	523
5.60	203	227	251	275	299	322	346	370	394	418	442	466
5.80	181	202	223	244	265	286	308	329	350	371	392	413
6.00	160	179	198	216	235	254	272	291	310	329	347	366
6.20	142	158	175	191	208	224	241	257	273	290	306	323
6.40	125	139	154	168	183	197	211	226	240	255	269	283
6.60	109	122	135	147	160	172	185	197	210	222	235	248
6.80	95	106	117	128	139	149	160	171	182	193	204	215
7.00	82	91	101	110	119	129	138	147	156	166	175	184

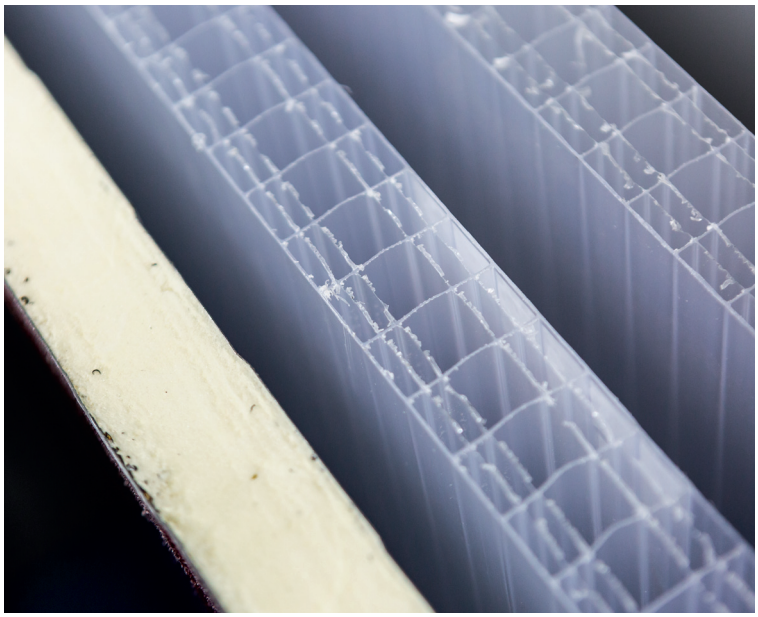
MT-100 - LAYOUT 2 OPENINGS - 3 SUPPORTS STATIC OVERLOADS (daN/m2) **THICKNESS 1.2 mm**

SPAN (m) \ H (cm)	14	15	16	17	18	19	20	21	22	23	24	25
2.00	1350	1500	1648	1793	1936	2032	2100	2167	2232	2296	2358	2419
2.20	1211	1345	1478	1608	1736	1821	1881	1940	1997	2054	2108	2162
2.40	1095	1217	1336	1454	1570	1646	1699	1751	1802	1851	1900	1947
2.60	997	1108	1217	1324	1429	1497	1545	1591	1636	1680	1723	1765
2.80	913	1015	1114	1212	1308	1370	1413	1454	1495	1534	1572	1610
3.00	841	934	1025	1115	1203	1260	1298	1335	1372	1407	1441	1475
3.20	777	863	947	1030	1111	1163	1198	1231	1264	1296	1327	1357
3.40	721	800	879	955	1030	1078	1109	1140	1169	1198	1225	1252
3.60	671	745	818	889	959	1002	1031	1058	1085	1111	1136	1160
3.80	626	695	763	829	894	935	960	985	1009	1033	1055	1077
4.00	586	651	714	776	836	874	897	919	941	962	983	1002
4.20	550	610	669	727	784	818	840	860	880	899	917	935
4.40	517	573	629	683	736	768	787	806	824	841	858	874
4.60	487	540	592	603	656	709	740	757	773	788	803	818
4.80	459	509	493	540	588	635	682	712	726	740	753	766
5.00	357	400	442	485	527	569	612	654	683	696	708	719
5.20	321	359	397	435	473	511	549	587	626	655	665	675
5.40	288	322	356	391	425	459	493	527	562	596	626	635
5.60	259	289	320	351	381	412	443	474	504	535	566	596
5.80	232	260	287	315	342	370	397	425	452	480	507	535
6.00	208	233	258	282	307	332	356	381	406	430	455	479
6.20	187	209	231	253	275	297	319	341	363	385	407	429
6.40	167	186	206	226	245	265	285	304	324	344	363	383
6.60	149	166	184	201	219	236	254	271	289	306	324	341
6.80	132	148	163	179	194	209	225	240	256	271	287	302
7.00	117	130	144	158	171	185	199	212	226	240	253	267

HA-25 - fck=25N/mm2 - Sheet - fy=220N/mm2 - Sag L/250 - 0% coef. negative redistribution

Shore up center of the opening

For other values, contact the **Technical Department** to evaluate the most optimal solution in each case and receive personalized advice.



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