

MT-42
PROFILED SHEET

RAW MATERIAL
 Steel

THICKNESSES mm (in.)
 From 0.5 to 1.2
 (0.019-0.047)

FINISH
 Pre-painted/Galvanized

USEFUL WIDTH
 1000 mm (39.37 in.)

	THICKNESS mm (in.)						
	0.50 (0.019)	0.60 (0.023)	0.70 (0.027)	0.75 (0.029)	0.80 (0.031)	1.00 (0.039)	1.20 (0.047)
P (kp/m ²)	4.91	5.89	6.87	7.36	7.85	9.81	11.78
I (cm ⁴ /m)	15,218	18,262	21,307	22,829	24,351	30,441	36,529
W (cm ³ /m) - side A	5,156	6,524	7,602	8,138	8,673	10,804	12,965
W (cm ³ /m) - side B	4,612	5,667	6,747	7,297	7,847	10,089	12,107

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


DESCRIPTION AND APPLICATION

The Hiansa MT-42 profile is specially designed for metal roofs and has a 42 mm (1.65 in.) high-ribbed form, which gives this profile good resistance to cover a wide range of common spans. The thicknesses can range from 0.50 mm (0.019 in.) up to 1.20 mm (0.047 in.). Its useful width is 1000 mm (39.37 in.) and its usual 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 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°.



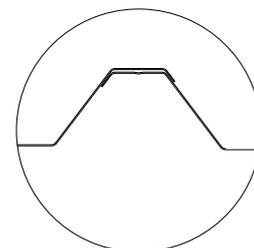
USE							
Roof SANDWICH panel	Roof SANDWICH panel	Roof DECK panel	SIMPLE façade	Façade SANDWICH panel	Façade SANDWICH panel	Interior	Lost Formwork
Interior Profile	Exterior Profile	Base Profile		Interior Profile	Exterior Profile	False Ceilings	
👍	👍	👍		👍		👍	👍

GEOMETRIC SPECIFICATIONS
APPLIED STANDARD

Geometric Specifications			
Characteristic	Value	Units	Tolerance / Standard
Profile thickness (h)	42 (1.65)	mm	±1.5 EN 508-1
Thickness of stiffeners	0	mm	+3/-1 EN 508-1
Wave Pitch	200	mm	±3.0 EN 508-1
Width of the ridge and valley	28/90.2	mm	+4/-1 EN 508-1
Useful width (w)	1000 (39.37)	mm	(±0.1 · h) and ≤15 EN 508-1
Bending radius (r)	3	mm	±2.0 EN 508-1
Length (l)	1600 (62.99) to 14,000 (551.18)	mm	+20/-5 EN 508-1

Ref. Standard	Description
EN 508-1	Products for sheet metal roofing and cladding: Specify for self-supporting steel sheet products. Part 1: steel.
EN 10143	Sheets and strips of steel with continuous metal coating by hot dipping. Dimensional and shape tolerances.
EN 10169	Flat steel products, continuous coated with organic materials (pre-painted). Technical supply conditions.
EN 10346	Flat steel products, continuous coated by hot dipping. Technical supply conditions.
EN 14782	Self-supporting metal sheets for covering and cladding of roofs and façades. Product specifications and requirements.

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	0.5 to 1.2	mm	UNE 10143
Type of steel	S220GD to S320GD		UNE 10346
Changes in measurements	12 x 10 ⁻⁴ 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


SECTION PROFILE

OVERLAP DETAIL

RESISTANCE TABLES

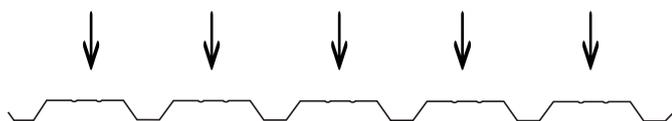
ROOFS - side "B"

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

PRESSURE LOAD															1 OPENING															PRESSURE 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	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	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																		
14	17	21	26	32	40	50	64	82	108	146	193	245	322	439	634	0.50	463	323	238	183	146	119	96	75	60	49	41	34	29	25	22	20	0.60	765	533	393	302	240	188	143	111	89	72	60	50	43	37	32	28	0.70	906	631	465	357	284	223	169	132	105	85	70	59	50	43	38	33
17	21	26	31	39	48	61	77	99	131	176	232	295	386	528	762	0.60	1034	720	531	408	324	255	193	150	120	97	81	68	58	50	43	38	0.70	1290	898	662	509	404	319	242	188	150	122	101	85	72	62	54	48																	
20	25	30	37	46	57	71	90	117	153	206	271	344	451	616	889	0.80	1545	1076	793	609	484	383	290	226	180	146	121	102	87	75	65	57																																		
23	28	35	42	52	65	82	104	134	176	237	309	393	516	704	1017	1.00																																																		
30	36	44	54	66	82	103	131	169	222	299	387	492	645	881	1272	1.20																																																		
36	43	53	65	80	99	125	158	204	269	361	464	590	773	1056	1525																																																			

PRESSURE LOAD															2 OPENINGS															PRESSURE 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	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	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	
25	28	31	36	41	47	55	64	76	91	111	138	175	230	315	455	0.50	643	448	330	254	201	164	136	115	99	86	75	66	59	53	47	41	0.60	765	533	393	302	240	195	162	137	117	102	89	79	71	64	58	52
43	48	54	62	70	80	93	109	128	154	187	232	295	386	528	762	0.70	906	631	465	357	284	231	192	162	139	121	106	94	84	75	68	62	0.80	1034	720	531	408	324	263	219	185	159	138	121	107	95	86	78	71
50	56	63	72	82	94	109	127	150	179	218	271	344	451	616	889	1.00	1290	898	662	509	404	329	273	231	198	172	151	133	119	107	97	88																	
58	64	73	82	93	107	124	145	171	205	249	309	393	516	704	1017	1.20	1545	1076	793	609	484	394	327	276	237	206	180	160	143	128	116	106																	
72	81	91	103	117	134	155	181	214	256	312	387	492	645	881	1272																																		
86	97	109	123	140	161	186	217	257	307	374	464	590	773	1056	1525																																		

PRESSURE LOAD															3 OPENINGS															PRESSURE 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	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	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	
31	36	40	46	52	60	69	81	96	115	139	173	220	289	394	570	0.50	721	502	370	284	225	183	152	129	109	88	73	61	51	44	38	33	0.60	963	670	494	379	301	245	203	171	147	127	108	90	76	65	56	49
37	44	53	64	78	96	116	136	160	192	233	288	366	480	655	946	0.70	1124	783	577	443	351	285	237	200	171	148	127	106	90	76	66	57	0.80	1286	895	659	506	401	326	271	229	196	170	146	121	102	87	75	66
44	52	62	75	92	113	138	161	190	227	276	342	434	568	776	1120	1.00	1608	1119	825	633	502	408	339	286	245	212	182	152	128	109	94	82																	
50	60	72	87	105	129	157	184	217	259	315	390	495	649	886	1278	1.20	1928	1342	989	759	602	489	406	343	294	254	219	182	154	131	113	99																	
64	76	91	109	133	163	196	229	270	323	392	486	618	809	1105	1594																																		
77	92	110	132	161	197	235	274	323	387	470	582	740	969	1323	1909																																		



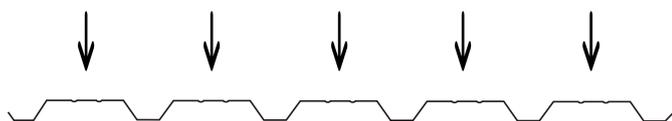
Permissible service loads, uniformly distributed in kg/m². The tables have been obtained based on a calculation methodology established in accordance with the provisions of the standard EUROCODE 3-Part 1-3. These results comply with the Ultimate Limit States of normal and tangential stresses prescribed in said standards and with a limitation of the Serviceability Limit State for deformations of L/200.

RESISTANCE TABLES

FAÇADES

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

PRESSURE LOAD															1 OPENING												PRESSURE 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	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	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	0.60	759	527	387	296	234	182	137	105	83	66	54	44	37	31	26	22	0.70	899	624	458	350	277	216	162	125	98	78	63	52	43	36	31	26	0.80	1026	712	523	400	316	247	185	142	112	89	73	60	50	42	35	30	1.00	1280	888	652	499	394	309	232	178	140	112	91	75	62	52	44	38	1.20	1533	1064	781	597	472	371	278	214	168	134	109	90	75	63	53	45
PRESSURE LOAD															2 OPENINGS												PRESSURE 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	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	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	0.60	759	527	387	296	234	189	156	131	111	96	83	73	65	58	52	46	0.70	899	624	458	350	277	224	185	155	132	114	99	87	77	68	61	55	0.80	1026	712	523	400	316	255	211	177	151	130	113	99	87	78	70	63	1.00	1280	888	652	499	394	319	263	221	188	162	141	123	109	97	87	78	1.20	1533	1064	781	597	472	382	315	264	225	194	168	148	131	116	104	94
PRESSURE LOAD															3 OPENINGS												PRESSURE 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	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	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	0.60	957	664	488	373	295	239	197	165	141	121	102	84	70	59	50	43	0.70	1117	776	570	436	344	278	230	193	164	141	120	99	83	69	59	50	0.80	1278	887	651	498	393	318	263	221	188	162	138	113	94	79	67	58	1.00	1598	1109	815	623	492	398	329	276	235	202	172	142	118	99	84	72	1.20	1916	1330	977	747	590	477	394	331	282	242	207	170	142	119	101	87



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 standard EUROCODE 3-Part 1-3. 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.

RESISTANCE TABLES

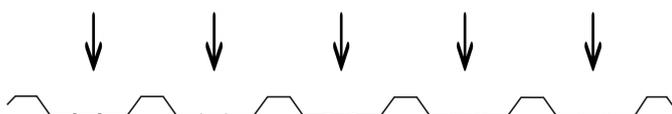
ROOFS - side "A"

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

PRESSURE LOAD														1 OPENING														PRESSURE 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	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	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	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	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	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	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	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	1545	1076	793	609	484	383	290	226	180	146	121	102	87	75	65	57

PRESSURE LOAD														2 OPENINGS														PRESSURE 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	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	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	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	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	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	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	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	1545	1076	793	609	484	394	327	276	237	206	180	160	143	128	116	106

PRESSURE LOAD														3 OPENINGS														PRESSURE 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	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	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	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	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	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	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	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	1928	1342	989	759	602	489	406	343	294	254	219	182	154	131	113	99



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 standard EUROCODE 3-Part 1-3. 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.