EN 14782

Profiled Sheet

FTB 2 · S220GD+Z (a)

roof

DURABLE · LIGHT · MECHANICAL RESISTANCE

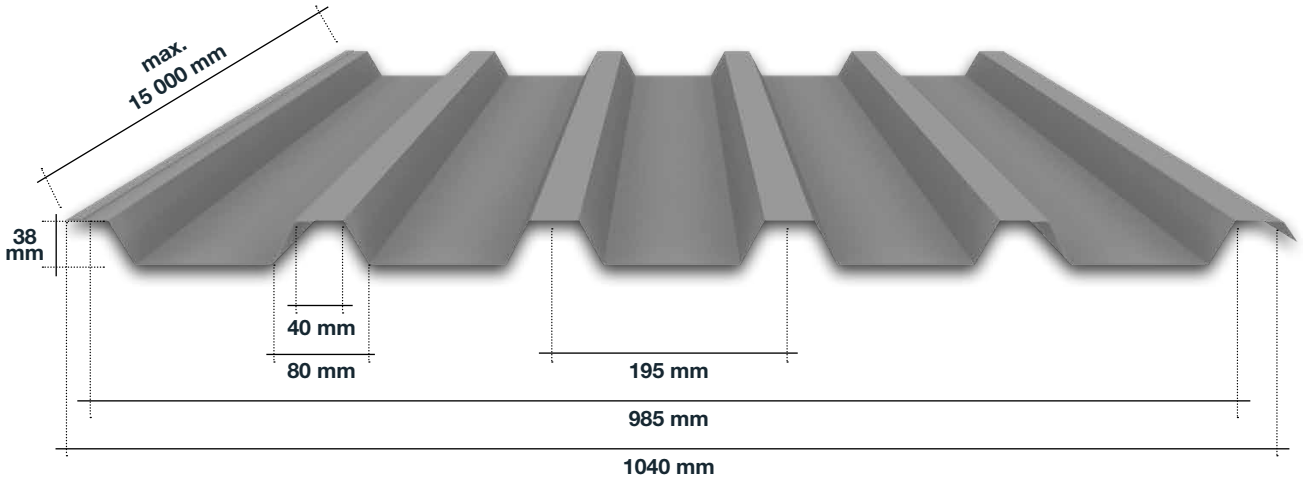
Description:

Profiled sheet, certified according with the standard EN 14782 – "Self-supporting metal sheet for roofing, external cladding and internal lining".

Advantages

Combine in a single element:

- Durability;
- Lightness;
- Fast assembly / disassembly;
- Reduced costs.



Properties:

			UPPER FLANGE IN COMPRESSION		LOWER FLANGE IN COMPRESSION			
NOMINAL THICKNESS	THICKNESS (FOR CALCULATION)	WEIGHT	MOMENT RESISTANCE	MOMENT OF INERTIA	MOMENT RESISTANCE	MOMENT OF INERTIA	COMPRESSIVE STRENGTH	SHEAR STRENGTH
mm	mm	kg/m²	kN.m/m	cm⁴/m	kN.m/m	cm⁴/m	kN/m	kN/m
0,5	0,46	4,72	0,846	11,662	0,829	8,526	9,489	18,968
0,6	0,56	5,66	1,174	15,067	1,113	11,034	13,513	28,112
0,7	0,66	6,60	1,474	18,659	1,430	13,701	18,129	33,962

Note: All the values of the strengths described on the table were calculated without consider the "shear lag" effect.

(a) The FTB also have steel sheets with class DX51d+z. If you choose this solution, you should consult us for FTB send the calculus table respective.

If you need other characteristics that aren't described on the table(s), please contact FTB technical department.

Calculation tables:

Admissible load values (non majorated) in kN/m²

2 SUPPORTS THICKNESS		SPAN 1,0	1,5	2,0	2,5	3,0
0,5	(D)	4,47	1,96	1,08	0,55	
	(A)	4,44	2,00	1,14	0,59	
0,6	(D)	6,19	2,73	1,46	0,72	
	(A)	5,95	2,67	1,48	0,76	0,44
0,7	(D)	7,78	3,43	1,81	0,90	0,49
	(A)	7,64	3,43	1,84	0,94	0,55
3 SUPPORTS THICKNESS		**SPAN 1,0**	**1,5**	**2,0**	**2,5**	**3,0**
0,5	(D)	2,72	1,43	0,89	0,61	0,43
	(A)	2,95	1,57	0,97	0,66	0,48
0,6	(D)	3,66	1,94	1,21	0,83	0,59
	(A)	4,04	2,13	1,33	0,92	0,67
0,7	(D)	4,73	2,51	1,57	1,10	0,78
	(A)	5,22	2,75	1,71	1,18	0,85
4 SUPPORTS THICKNESS		**SPAN 1,0**	**1,5**	**2,0**	**2,5**	**3,0**
0,5	(D)	3,26	1,73	1,10	0,76	0,54
	(A)	3,52	1,88	1,18	0,80	0,59
0,6	(D)	4,40	2,37	1,49	1,03	0,74
	(A)	4,82	2,59	1,62	1,12	0,82
0,7	(D)	5,69	3,04	1,91	1,35	0,97
	(A)	6,33	3,34	2,08	1,44	1,04

Only were considered the loads on roofs Superior to to 0,4 kN/m2 according to "EN 1991-1-1: Actions on structures - Part 1-1: General actions - Densities, self-weight, imposed loads for buildings".

***(D)** descending loads (perpendicular to the steel sheet)*
***(A)** ascending loads (perpendicular to the steel sheet)*
***"in black"**, loads conditioned by ULS*
***"gray background"**, loads conditioned by SLS*

SLS – deformation limit = L/200 for descending loads
SLS – deformation limit = L/150 for ascending loads

Calculation tables:

Maximum length span (m), for concentrated force of 1 kN/m

LINEAR LOAD OF 1 KN/M		
THICKNESS	SUPPORTS	MAX. ADMISSIBLE SPAN
0,5	2 supports	2,15
	3 supports or more	2,47
0,6	2 supports	2,63
	3 supports or more	3,14
0,7	2 supports	2,90
	3 supports or more	3,47

Characteristics:

			STANDARD	BY REQUEST	
Metallic Support	Steel grade		S220GD+Z	DX51D+Z, S250GD+Z to S350 GD+Z	
	Steel Thickness		0,4 a 0,5 mm	0,6 mm	0,7 mm
	Coating	Galvanized	140 a 180 gr/m²		
		Pre-painted	Polyester (25 µm)	PVDF (25/35 µm)	HDX (55 µm)
	Colours		Available at RAL chart		

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