

Frontpage hidden fixing

As of 06 / 2020

General notes on span tables for wall panels with hidden fixing

Note the following:

- The characteristic loads are to be determined according to the terms of valid standards and eurocodes.
- Choose the minimal supporting width from wind pressure, wind suction and **wind suction (cp1 values)** for hidden fixing for the respective case of application.
- Colour groups I (very light), II (light) and III (dark) – see approval.
- This span table is valid for buildings with normal interior climate (no cold store or ripening facilities).
- Valid supporting widths are stated in meters (m), supporting widths in millimetres (mm), see example below. The stated supporting widths apply to multi-span installation and direct attachment up to max. 3 screws per intermediate support line and meter. When using more than 3 screws per meter, the crush tension needs to be checked according to the requirements of the approval.
- Valid supporting widths for hidden fixing only apply for the version of fixing stated in the table. Deviating fixings are to be calculated separately. Values for the calculation are to be taken from the approval, enclosure 2a. Consider values (cp1) as wind suction load for fixing.
- Deflection amounts to a maximum of $L/200$ under consideration of all unfavourable loads according to approval.
- In each case a separate proof for fixing material is required (for tensile load of wind suction and temperature, for pulling-out of the subconstruction and for screw-head-deflection). **A high tensile capacity and therefore a high supporting width for a hidden fixing is achieved by a symmetrical subconstruction with adequate thickness of material.**

Example:

from wind pressure table:

40	→ end support width necessary (mm)
5,70	→ valid supporting width (m)
60	→ intermediate support width necessary (mm)

from wind suction table:

6,13	→ valid supporting width (m)
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from table wind suction with hidden fixing:

4,05	→ valid supporting width (m)
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(lowest value from the tables)

valid supporting width

**visible fixing
= 5,70 m**

**hidden fixing
= 4,05 m**

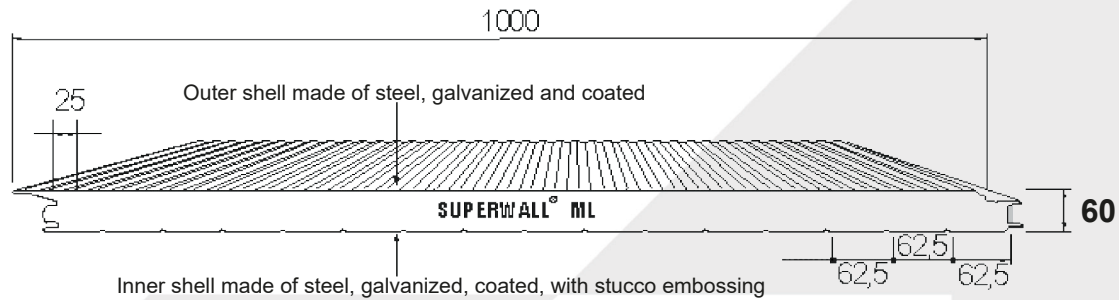
Span table 23-06

As of 06 / 2020

Superwall ML (SU1/S) 60 mm

$t_N = 0,60 / 0,45$ mm, S320GD

Max. valid supporting widths stated in the following are calculated according to approval Z-10.49-516 with additions from 23rd June 2011 in accordance with EN 14509. The directions for the application of the table can be gathered from the frontpage.



Valid supporting widths [m] for wind pressure loads

stat. system	colour group	characteristic wind pressure loads in kN / m ²											
		0,25	0,30	0,40	0,50	0,60	0,80	1,00	1,25	1,50	1,75	2,00	
single span	I, II, III	40	40	40	40	40	40	40	40	42	46	49	53
		6,68	6,42	5,98	5,57	5,25	4,76	4,29	3,84	3,51	3,25	3,04	
dual span	I, II, III	40	40	40	40	40	40	40	40	42	46	50	
		5,98	5,58	5,00	4,62	4,33	3,92	3,64	3,38	3,19	3,04	2,89	
multiple span	I, II, III	40	40	40	40	40	40	40	40	45	49	53	
		7,86	7,21	6,30	5,68	5,21	4,55	4,11	3,71	3,42	3,20	3,02	
		60	60	60	60	60	60	63	74	83	93	101	
		60	60	60	60	60	63	72	81	89	97	105	

Valid supporting widths [m] for wind suction

stat. system	colour group	characteristic wind suction in kN / m ²										
		0,25	0,30	0,40	0,50	0,60	0,80	1,00	1,25	1,50	1,75	2,00
single span	I, II, III	5,66	5,49	5,22	4,99	4,73	4,09	3,66	3,28	2,99	2,77	2,59
dual span	I, II	7,32	6,69	5,79	5,18	4,73	4,09	3,66	3,28	2,99	2,77	2,59
	III	5,39	5,08	4,63	4,32	4,09	3,75	3,51	3,28	2,99	2,77	2,59
multiple span	I, II	7,32	6,69	5,79	5,18	4,73	4,09	3,66	3,28	2,99	2,77	2,59
	III	7,32	6,69	5,79	5,18	4,73	4,09	3,66	3,28	2,99	2,77	2,59

Valid supporting widths [m] for wind suction with hidden fixing

End support = 2 screws intermediate support = 2 screws with Z-saddle cap

stat. system	colour group	characteristic wind suction in kN / m ²										
		0,25	0,30	0,40	0,50	0,60	0,80	1,00	1,25	1,50	1,75	2,00
single span	I, II, III	5,66	5,49	5,22	4,77	3,98	2,98	2,39	1,91	1,59	1,36	1,19
dual span	I, II	7,32	6,60	4,78	3,72	3,04	2,24	1,81	1,48	1,23	1,06	0,94
	III	5,39	5,08	4,63	3,30	2,66	1,95	1,58	1,31	1,13	1,00	0,92
multiple span	I, II	7,32	6,69	5,79	4,74	3,90	2,68	1,90	1,38	1,04	0,90	0,81
	III	7,32	6,68	5,79	4,60	3,76	2,66	1,90	1,38	1,04	0,90	0,81

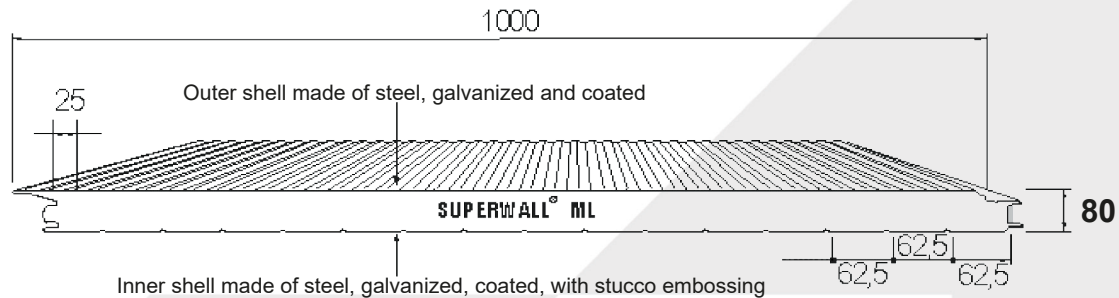
Span table 23-08

As of 06 / 2020

Superwall ML (SU1/S) 80 mm

$t_N = 0,60 / 0,45$ mm, S320GD

Max. valid supporting widths stated in the following are calculated according to approval Z-10.49-516 with additions from 23rd June 2011 in accordance with EN 14509. The directions for the application of the table can be gathered from the frontpage.



Valid supporting widths [m] for wind pressure loads

stat. system	colour group	characteristic wind pressure loads in kN / m ²										
		0,25	0,30	0,40	0,50	0,60	0,80	1,00	1,25	1,50	1,75	2,00
single span	I, II, III	40	40	40	40	40	40	43	48	53	57	61
		8,46	8,09	7,40	6,87	6,42	5,56	4,97	4,45	4,06	3,76	3,52
dual span	I, II, III	40	40	40	40	40	40	40	43	49	54	59
		7,00	6,53	5,87	5,42	5,09	4,61	4,28	3,98	3,76	3,56	3,40
multiple span	I, II, III	40	40	40	40	40	40	42	47	52	57	61
		9,13	8,37	7,32	6,59	6,05	5,29	4,78	4,32	3,99	3,73	3,52
		60	60	60	60	60	64	74	87	98	108	118
		60	60	60	60	63	74	83	94	104	114	122

Valid supporting widths [m] for wind suction

stat. system	colour group	characteristic wind suction in kN / m ²										
		0,25	0,30	0,40	0,50	0,60	0,80	1,00	1,25	1,50	1,75	2,00
single span	I, II, III	8,46	7,74	6,70	6,00	5,47	4,74	4,24	3,79	3,46	3,20	3,00
dual span	I, II	8,48	7,74	6,70	6,00	5,47	4,74	4,24	3,79	3,46	3,20	3,00
	III	6,35	5,99	5,47	5,10	4,83	4,43	4,15	3,79	3,46	3,20	3,00
multiple span	I, II	8,48	7,74	6,70	6,00	5,47	4,74	4,24	3,79	3,46	3,20	3,00
	III	8,48	7,74	6,70	6,00	5,47	4,74	4,24	3,79	3,46	3,20	3,00

Valid supporting widths [m] for wind suction with hidden fixing

End support = 2 screws intermediate support = 2 screws with Z-saddle cap

stat. system	colour group	characteristic wind suction in kN / m ²										
		0,25	0,30	0,40	0,50	0,60	0,80	1,00	1,25	1,50	1,75	2,00
single span	I, II, III	8,46	7,74	6,70	5,76	4,80	3,60	2,88	2,30	1,92	1,65	1,44
dual span	I, II	8,46	7,74	6,30	4,93	4,04	2,99	2,40	1,88	1,54	1,32	1,16
	III	6,35	5,99	5,47	4,52	3,66	2,68	2,16	1,76	1,52	1,32	1,16
multiple span	I, II	8,46	7,74	6,70	6,00	4,89	3,33	2,43	1,77	1,40	1,17	1,02
	III	8,46	7,74	6,70	5,97	4,89	3,33	2,43	1,77	1,40	1,17	1,02

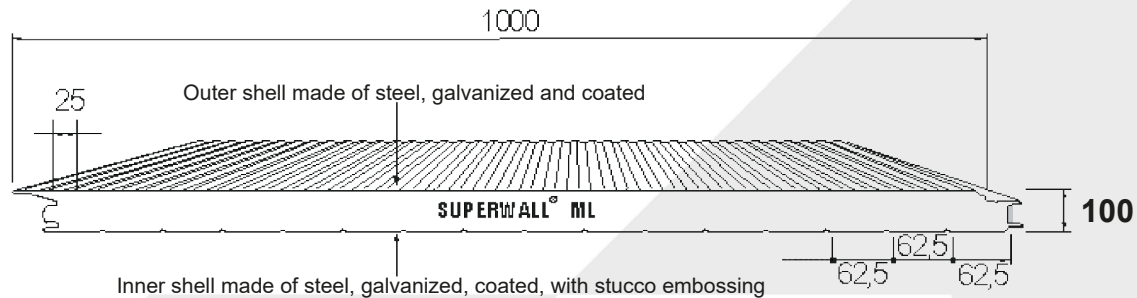
Span table 23-10

As of 06 / 2020

Superwall ML (SU1/S) 100 mm

$t_N = 0,60 / 0,45$ mm, S320GD

Max. valid supporting widths stated in the following are calculated according to approval Z-10.49-516 with additions from 23rd June 2011 in accordance with EN 14509. The directions for the application of the table can be gathered from the frontpage.



Valid supporting widths [m] for wind pressure loads

stat. system	colour group	characteristic wind pressure loads in kN / m ²										
		0,25	0,30	0,40	0,50	0,60	0,80	1,00	1,25	1,50	1,75	2,00
single span	I, II, III	40	40	40	40	40	43	48	54	59	64	68
		10,11	9,58	8,74	7,84	7,19	6,22	5,57	4,98	4,54	4,21	3,94
dual span	I, II, III	40	40	40	40	40	40	42	49	55	61	66
		7,84	7,31	6,58	6,07	5,70	5,16	4,80	4,47	4,22	3,99	3,80
multiple span	I, II, III	40	40	40	40	40	41	47	53	58	64	68
		10,22	9,37	8,19	7,37	6,77	5,92	5,35	4,84	4,46	4,17	3,94
		60	60	60	60	60	72	84	97	110	121	132
		60	60	60	64	71	83	93	105	117	127	136

Valid supporting widths [m] for wind suction

stat. system	colour group	characteristic wind suction in kN / m ²										
		0,25	0,30	0,40	0,50	0,60	0,80	1,00	1,25	1,50	1,75	2,00
single span	I, II, III	8,81	8,52	7,50	6,71	6,13	5,67	4,75	4,25	3,88	3,59	3,36
dual span	I, II	9,49	8,67	7,50	6,71	6,13	5,67	4,75	4,25	3,88	3,59	3,36
	III	7,11	6,70	6,12	5,71	5,41	4,96	4,65	4,25	3,88	3,59	3,36
multiple span	I, II	9,49	8,67	7,50	6,71	6,13	5,67	4,75	4,25	3,88	3,59	3,36
	III	9,49	8,67	7,50	6,71	6,13	5,31	4,75	4,25	3,88	3,59	3,36

Valid supporting widths [m] for wind suction with hidden fixing

End support = 2 screws intermediate support = 2 screws with Z-saddle cap

stat. system	colour group	characteristic wind suction in kN / m ²										
		0,25	0,30	0,40	0,50	0,60	0,80	1,00	1,25	1,50	1,75	2,00
single span	I, II, III	8,81	8,52	7,50	6,71	5,62	4,22	3,37	2,70	2,25	1,93	1,69
dual span	I, II	9,49	8,67	7,50	6,71	5,30	3,92	2,98	2,26	1,84	1,57	1,38
	III	9,49	8,67	6,12	5,71	4,92	3,58	2,85	2,26	1,84	1,57	1,38
multiple span	I, II	9,49	8,67	7,50	6,71	5,85	4,05	2,98	2,17	1,70	1,42	1,22
	III	9,49	8,67	7,50	6,71	5,85	4,04	2,97	2,17	1,70	1,42	1,22

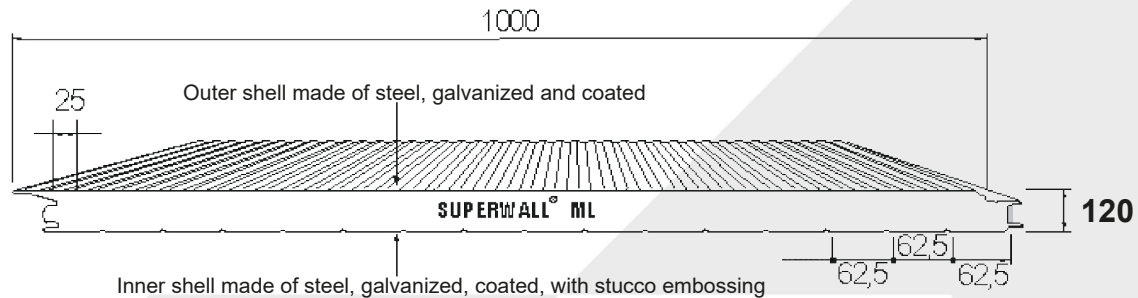
Span table 23-12

As of 06 / 2020

Superwall ML (SU1/S) 120 mm

$t_N = 0,60 / 0,45$ mm, S320GD

Max. valid supporting widths stated in the following are calculated according to approval Z-10.49-516 with additions from 23rd June 2011 in accordance with EN 14509. The directions for the application of the table can be gathered from the frontpage.



Valid supporting widths [m] for wind pressure loads

stat. system	colour group	characteristic wind pressure loads in kN / m ²										
		0,25	0,30	0,40	0,50	0,60	0,80	1,00	1,25	1,50	1,75	2,00
single span	I, II, III	40	40	40	40	41	47	53	59	65	70	75
		12,21	11,14	9,65	8,63	7,88	6,82	6,10	5,46	4,98	4,61	4,32
dual span	I, II, III	40	40	40	40	40	41	47	54	61	67	73
		9,15	8,49	7,57	6,95	6,49	5,84	5,39	4,99	4,68	4,42	4,20
multiple span	I, II, III	40	40	40	40	40	47	53	59	65	70	75
		11,72	10,72	9,33	8,38	7,68	6,71	6,05	5,46	4,98	4,61	4,32
		60	60	60	60	68	81	94	109	122	135	146
		60	60	65	73	80	93	105	119	130	140	150

Valid supporting widths [m] for wind suction

stat. system	colour group	characteristic wind suction in kN / m ²										
		0,25	0,30	0,40	0,50	0,60	0,80	1,00	1,25	1,50	1,75	2,00
single span	I, II, III	10,66	9,73	8,43	7,54	6,88	5,96	5,33	4,77	4,35	4,03	3,77
dual span	I, II	10,66	9,73	8,42	7,54	6,88	5,96	5,33	4,77	4,35	4,03	3,77
	III	7,58	7,14	6,51	6,07	5,74	5,26	4,93	4,62	4,35	4,03	3,77
multiple span	I, II	10,66	9,73	8,43	7,54	6,88	5,96	5,33	4,77	4,35	4,03	3,77
	III	10,66	9,73	8,43	7,54	6,88	5,96	5,33	4,77	4,35	4,03	3,77

Valid supporting widths [m] for wind suction with hidden fixing

End support = 2 screws intermediate support = 2 screws with Z-saddle cap

stat. system	colour group	characteristic wind suction in kN / m ²										
		0,25	0,30	0,40	0,50	0,60	0,80	1,00	1,25	1,50	1,75	2,00
single span	I, II, III	10,66	9,73	8,43	7,54	6,80	5,10	4,08	3,26	2,72	2,33	2,04
dual span	I, II	10,66	9,73	7,99	6,24	5,11	3,75	2,99	2,42	2,05	1,80	1,60
	III	7,58	7,14	6,51	5,74	4,62	3,34	2,65	2,16	1,84	1,63	1,46
multiple span	I, II	10,66	9,73	8,43	7,54	6,41	4,72	3,72	2,84	2,20	1,79	1,52
	III	10,66	9,73	8,43	7,54	6,23	4,54	3,54	2,77	2,20	1,79	1,52

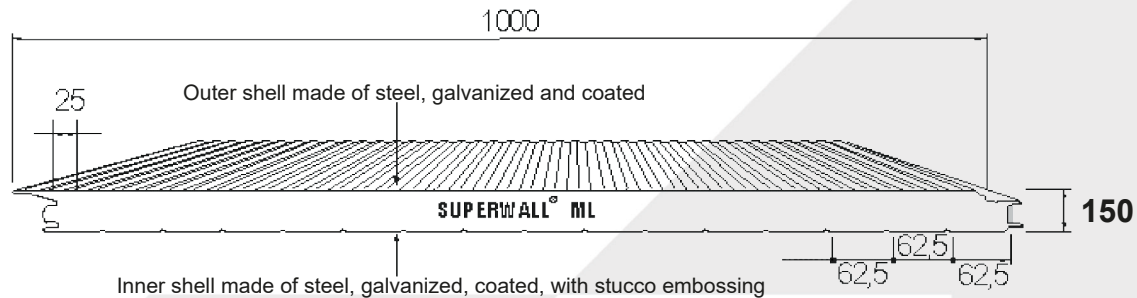
Span table 23-15

As of 06 / 2020

Superwall ML (SU1/S) 150 mm

$t_N = 0,60 / 0,45$ mm, S320GD

Max. valid supporting widths stated in the following are calculated according to approval Z-10.49-516 with additions from 23rd June 2011 in accordance with EN 14509. The directions for the application of the table can be gathered from the frontpage.



Valid supporting widths [m] for wind pressure loads

stat. system	colour group	characteristic wind pressure loads in kN / m ²											
		0,25	0,30	0,40	0,50	0,60	0,80	1,00	1,25	1,50	1,75	2,00	
single span	I, II, III	40	40	40	40	40	40	40	40	44	49	52	56
		13,66	12,47	10,80	9,66	8,82	7,64	6,83	6,11	5,58	5,19	4,83	
dual span	I, II, III	40	40	40	40	40	40	40	42	48	52	56	
		11,25	10,41	9,22	8,42	7,83	7,01	6,42	5,86	5,46	5,14	4,83	
multiple span	I, II, III	40	40	40	40	40	40	40	44	49	52	56	
		13,66	12,47	10,79	9,66	8,82	7,64	6,83	6,11	5,58	5,16	4,83	
		60	60	60	60	60	65	74	85	95	104	112	
		60	60	60	60	61	71	79	89	97	105	112	

Valid supporting widths [m] for wind suction

stat. system	colour group	characteristic wind suction in kN / m ²										
		0,25	0,30	0,40	0,50	0,60	0,80	1,00	1,25	1,50	1,75	2,00
single span	I, II, III	12,38	11,31	9,79	8,76	7,99	6,92	6,19	5,54	5,06	4,68	4,38
dual span	I, II	12,38	11,31	9,79	8,76	7,99	6,92	6,19	5,54	5,06	4,68	4,38
	III	8,48	7,99	7,28	6,79	6,42	5,89	5,52	5,17	4,91	4,68	4,38
multiple span	I, II	12,38	11,31	9,79	8,76	7,99	6,92	6,19	5,54	5,06	4,68	4,38
	III	12,10	11,11	9,73	8,76	7,99	6,92	6,19	5,54	5,06	4,68	4,38

Valid supporting widths [m] for wind suction with hidden fixing

End support = 2 screws intermediate support = 2 screws with Z-saddle cap

stat. system	colour group	characteristic wind suction in kN / m ²										
		0,25	0,30	0,40	0,50	0,60	0,80	1,00	1,25	1,50	1,75	2,00
single span	I, II, III	12,38	11,31	9,79	8,76	7,99	6,42	5,13	4,11	3,42	2,93	2,57
dual span	I, II	12,38	10,67	7,73	6,00	4,90	3,60	2,90	2,36	2,02	1,78	1,59
	III	8,48	7,99	7,06	5,35	4,29	3,13	2,52	2,08	1,80	1,60	1,44
multiple span	I, II	12,38	11,31	9,69	7,66	6,30	4,63	3,64	2,86	2,36	2,02	1,77
	III	11,97	10,99	9,47	7,43	6,08	4,40	3,42	2,66	2,19	1,87	1,64