

General notes on span tables for roof panels

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, snow load or wind suction for the respective case of application. The wind pressure that possibly needs to be taken into account may be added to the snow load for safety reasons. When doing so, the combination coefficients Ψ according to DIN EN 14509, Appendix E, Table E6 can be considered.
- 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), support widths in millimetres (mm), see example below.
- The deflection amounts to a maximum of $L/100$ under consideration of all unfavourable loads, including long-time exposure, and to a maximum of $L/200$ for short-term exposure.
- 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 the screw head deflection).

Example:

from snow load table (incl. wind pressure):

40
3,44
60

- end support width necessary (mm)
- valid supporting width (m)
- intermediate support width necessary (mm)

from wind suction table:

5,19

- valid supporting width (m)



valid supporting width = 3,44 m
(lowest value of both tables)

Span table 03-06

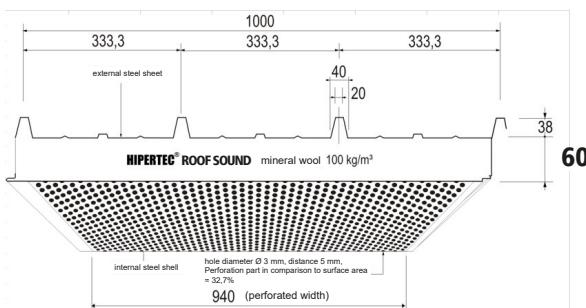
Hipertec Roof Sound (T/P-L), d = 60 mm

t_N = 0,60 / 0,60 mm, S 320 GD



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The following maximum spans have been calculated according Zulassung Z-10.49-517 of May 20th 2022 for Metecno sandwich panels with mineral wool core. For the perforated internal sheets, reduced surface due to perforation as well as reduced crease tension have been taken into account. Sandwich panels with perforated sheets are not covered by DIN EN 14509. Instructions for the use of the table can be found on the cover sheet.



Valid supporting widths [m] for snow loads

stat. system	colour group	characteristic snow load in kN / m ²									
		0,25	0,60	0,70	0,80	0,90	1,00	1,25	1,50	1,75	2,00
single span	I, II, III	49 4,58	72 3,68	73 3,30	74 3,00	75 2,75	76 2,54	78 2,16	81 1,90	84 1,70	86 1,55
dual span	I, II, III	40 1,80	40 1,80	40 1,80	45 1,80	49 1,80	54 1,80	65 1,80	77 1,80	84 1,70	86 1,55
multiple span	I, II	40 1,65	40 1,65	40 1,65	41 1,65	45 1,65	49 1,65	60 1,65	71 1,65	81 1,65	86 1,55
	III	40 0,53*	40 0,53*	40 0,53*	40 0,53*	40 0,53*	40 0,53*	40 0,53*	40 0,53*	40 0,53*	40 0,53*
stat. system	colour group	characteristic snow load in kN / m ²									
		2,25	2,50	2,75	3,00	3,25	3,50	4,00	4,25	4,50	5,00
single span	I, II, III	89 1,43	91 1,33	94 1,25	96 1,18	98 1,12	101 1,07	106 0,99	108 0,95	110 0,92	115 0,87
dual span	I, II, III	89 1,43	91 1,33	94 1,25	96 1,18	98 1,12	101 1,07	106 0,99	108 0,95	110 0,92	115 0,87
multiple span	I, II	89 1,43	91 1,33	94 1,25	96 1,18	98 1,12	101 1,07	106 0,99	108 0,95	110 0,92	115 0,87
	III	40 0,53*	40 0,53*	40 0,53*	43 0,53*	47 0,53*	50 0,53*	57 0,53*	60 0,53*	64 0,53*	70 0,53*

Valid supporting widths [m] for wind suction

stat. system	colour group	characteristic wind suction in kN / m ²									
		0,25	0,40	0,50	0,60	0,70	0,80	0,90	1,00	1,25	1,50
single span	I, II, III	4,58	4,58	4,33	3,86	3,28	2,85	2,54	2,29	1,87	1,60
dual span	I, II, III	1,80	1,80	1,80	1,80	1,80	1,80	1,80	1,80	1,80	1,60
multiple span	I, II	1,65	1,65	1,65	1,65	1,65	1,65	1,65	1,65	1,65	1,60
	III	0,53*	0,53*	0,53*	0,53*	0,53*	0,53*	0,53*	0,53*	0,53*	0,53*
stat. system	colour group	characteristic wind suction in kN / m ²									
		1,75	2,00	2,25	2,50	2,75	3,00	3,25	3,50	4,00	5,00
single span	I, II, III	1,42	1,28	1,18	1,09	1,03	0,98	0,93	0,89	0,82	0,73
dual span	I, II, III	1,42	1,28	1,18	1,09	1,03	0,98	0,93	0,89	0,82	0,73
multiple span	I, II	1,42	1,28	1,18	1,09	1,03	0,98	0,93	0,89	0,82	0,73
	III	0,53*	0,53*	0,53*	0,53*	0,53*	0,53*	0,53*	0,53*	0,53*	0,53*

*) größere Stützweiten sind im Einzelfall möglich; dies ist im Rahmen einer statischen Berechnung mit der konkreten Stützweite nachzuweisen

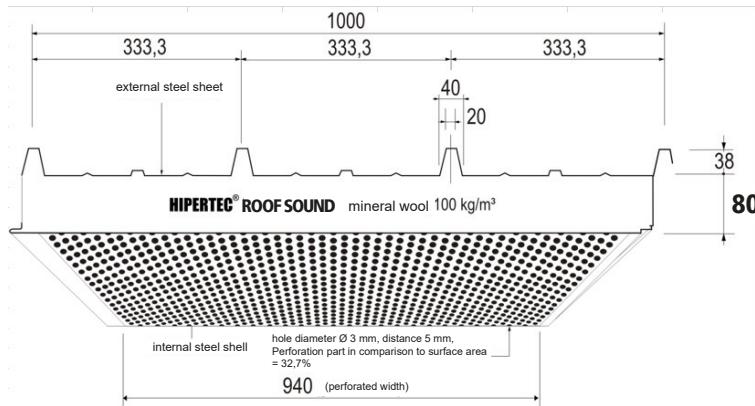
Span table 03-08

Hipertec Roof Sound (T/P-L), d = 80 mm

t_N = 0,60 / 0,60 mm, S 320 GD



The following maximum spans have been calculated according Zulassung Z-10.49-517 of May 20th 2022 for Metecno sandwich panels with mineral wool core. For the perforated internal sheets, reduced surface due to perforation as well as reduced crease tension have been taken into account. Sandwich panels with perforated sheets are not covered by DIN EN 14509. Instructions for the use of the table can be found on the cover sheet.



Valid supporting widths [m] for snow loads

stat. system	colour group	characteristic snow load in kN / m ²									
		0,25	0,60	0,70	0,80	0,90	1,00	1,25	1,50	1,75	2,00
single span	I, II, III	74 6,67	89 4,40	90 3,95	91 3,58	91 3,28	92 3,03	94 2,56	97 2,24	99 1,99	101 1,80
dual span	I, II, III	40 2,02	41 2,02	46 60 81	51 2,02	56 2,02	61 2,02	74 2,02	87 2,02	99 1,99	101 1,80
multiple span	I, II, III	40 1,86	40 1,86	42 1,86	47 1,86	52 1,86	57 1,86	69 1,86	81 1,86	92 1,86	101 1,80
		60	75	85	94	104	113	137	161	185	202

stat. system	colour group	characteristic snow load in kN / m ²									
		2,25	2,50	2,75	3,00	3,25	3,50	4,00	4,25	4,50	5,00
single span	I, II, III	104 1,66	106 1,53	108 1,43	111 1,35	113 1,28	115 1,21	119 1,11	121 1,06	124 1,03	128 0,96
dual span	I, II, III	104 1,66	106 1,53	108 1,43	111 1,35	113 1,28	115 1,21	119 1,11	121 1,06	124 1,03	128 0,96
multiple span	I, II, III	104 1,66	106 1,53	108 1,43	111 1,35	113 1,28	115 1,21	119 1,11	121 1,06	124 1,03	128 0,96
		208	211	216	221	226	229	239	242	248	256

Valid supporting widths [m] for wind suction

stat. system	colour group	characteristic wind suction in kN / m ²									
		0,25	0,40	0,50	0,60	0,70	0,80	0,90	1,00	1,25	1,50
single span	I, II, III	7,09	5,93	5,05	4,48	4,07	3,76	3,51	3,20	2,56	2,16
dual span	I, II, III	2,02	2,02	2,02	2,02	2,02	2,02	2,02	2,02	2,02	2,02
multiple span	I, II, III	1,86	1,86	1,86	1,86	1,86	1,86	1,86	1,86	1,86	1,86

stat. system	colour group	characteristic wind suction in kN / m ²									
		1,75	2,00	2,25	2,50	2,75	3,00	3,25	3,50	4,00	5,00
single span	I, II, III	1,88	1,67	1,52	1,39	1,29	1,21	1,14	1,08	0,99	0,86
dual span	I, II, III	1,88	1,67	1,52	1,39	1,29	1,21	1,14	1,08	0,99	0,86
multiple span	I, II, III	1,86	1,67	1,52	1,39	1,29	1,21	1,14	1,08	0,99	0,86

Span table 03-10

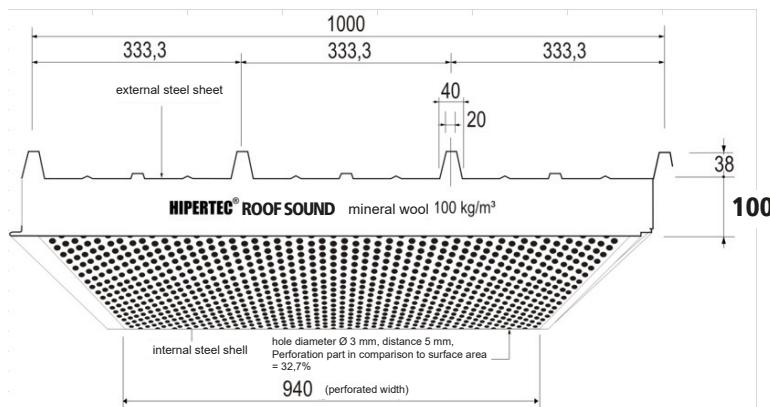
Hipertec Roof Sound (T/P-L), d = 100 mm

t_N = 0,60 / 0,60 mm, S 320 GD



Bausysteme GmbH

The following maximum spans have been calculated according Zulassung Z-10.49-517 of May 20th 2022 for Metecno sandwich panels with mineral wool core. For the perforated internal sheets, reduced surface due to perforation as well as reduced crease tension have been taken into account. Sandwich panels with perforated sheets are not covered by DIN EN 14509. Instructions for the use of the table can be found on the cover sheet.



Valid supporting widths [m] for snow loads

stat. system	colour group	characteristic snow load in kN / m ²									
		0,25	0,60	0,70	0,80	0,90	1,00	1,25	1,50	1,75	2,00
single span	I, II, III	88 7,54	106 5,12	107 4,59	108 4,16	109 3,82	109 3,52	112 2,98	113 2,58	116 2,30	117 2,07
dual span	I, II, III	40 2,24	46 2,24	52 2,24	58 2,24	64 2,24	69 2,24	84 2,24	98 2,24	113 2,24	117 2,07
multiple span	I, II, III	40 2,06	43 2,06	48 2,06	53 2,06	59 2,06	64 2,06	77 2,06	90 2,06	104 2,06	117 2,06
		60	85	96	107	117	128	154	181	207	234

stat. system	colour group	characteristic snow load in kN / m ²									
		2,25	2,50	2,75	3,00	3,25	3,50	4,00	4,25	4,50	5,00
single span	I, II, III	119 1,89	122 1,75	124 1,63	126 1,53	128 1,44	130 1,36	134 1,24	136 1,19	138 1,14	142 1,06
dual span	I, II, III	120 1,90	122 1,75	124 1,63	126 1,53	128 1,44	130 1,36	134 1,24	136 1,19	138 1,14	142 1,06
multiple span	I, II, III	120 1,90	122 1,75	124 1,63	126 1,53	128 1,44	130 1,36	134 1,24	136 1,19	138 1,14	142 1,06
		240	224	248	252	256	259	268	273	276	284

Valid supporting widths [m] for wind suction

stat. system	colour group	characteristic wind suction in kN / m ²									
		0,25	0,40	0,50	0,60	0,70	0,80	0,90	1,00	1,25	1,50
single span	I, II, III	7,97	6,79	5,74	5,06	4,58	4,22	3,93	3,70	3,26	2,72
dual span	I, II, III	2,24	2,24	2,24	2,24	2,24	2,24	2,24	2,24	2,24	2,24
multiple span	I, II, III	2,06	2,06	2,06	2,06	2,06	2,06	2,06	2,06	2,06	2,06

stat. system	colour group	characteristic wind suction in kN / m ²									
		1,75	2,00	2,25	2,50	2,75	3,00	3,25	3,50	4,00	5,00
single span	I, II, III	2,34	2,07	1,86	1,70	1,56	1,46	1,36	1,28	1,16	0,99
dual span	I, II, III	2,24	2,07	1,86	1,70	1,56	1,46	1,36	1,28	1,16	0,99
multiple span	I, II, III	2,06	2,07	1,86	1,70	1,56	1,46	1,36	1,28	1,16	0,99

Span table 03-12

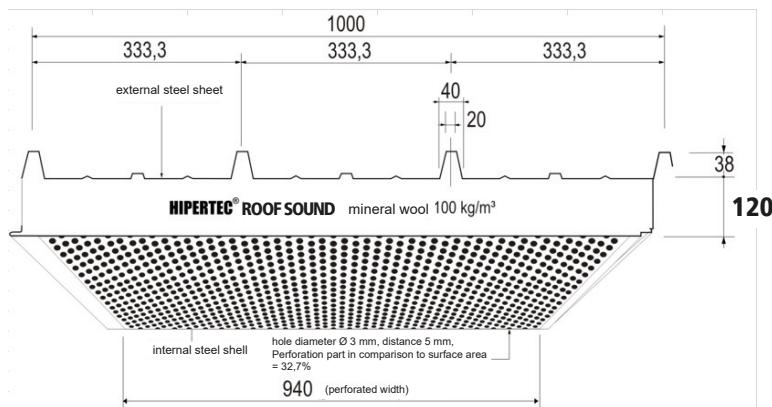
Hipertec Roof Sound (T/P-L), d = 120 mm

t_N = 0,60 / 0,60 mm, S 320 GD



Bausysteme GmbH

The following maximum spans have been calculated according Zulassung Z-10.49-517 of May 20th 2022 for Metecno sandwich panels with mineral wool core. For the perforated internal sheets, reduced surface due to perforation as well as reduced crease tension have been taken into account. Sandwich panels with perforated sheets are not covered by DIN EN 14509. Instructions for the use of the table can be found on the cover sheet.



Valid supporting widths [m] for snow loads

stat. system	colour group	characteristic snow load in kN / m ²									
		0,25	0,60	0,70	0,80	0,90	1,00	1,25	1,50	1,75	2,00
single span	I, II, III	102 8,33	124 5,81	124 5,22	125 4,74	126 4,34	127 4,02	128 3,38	131 2,94	132 2,60	134 2,34
dual span	I, II, III	45 3,68	78 3,68	88 3,68	97 3,68	107 3,68	116 3,68	128 3,38	131 2,94	132 2,60	134 2,34
multiple span	I, II, III	57 4,67	99 4,67	111 4,67	123 4,67	126 4,34	127 4,01	128 3,38	131 2,94	132 2,60	134 2,34
		115	199	223	247	253	253	257	261	264	268

stat. system	colour group	characteristic snow load in kN / m ²									
		2,25	2,50	2,75	3,00	3,25	3,50	4,00	4,25	4,50	5,00
single span	I, II, III	136 2,14	138 1,97	140 1,83	142 1,71	144 1,61	146 1,52	150 1,38	152 1,32	153 1,26	157 1,17
dual span	I, II, III	136 2,14	138 1,97	140 1,83	142 1,71	144 1,61	146 1,52	150 1,38	152 1,32	153 1,26	157 1,17
multiple span	I, II, III	136 2,14	138 1,97	140 1,83	142 1,71	144 1,61	146 1,52	150 1,38	152 1,32	153 1,26	157 1,17
		273	276	280	284	288	291	300	304	306	315

Valid supporting widths [m] for wind suction

stat. system	colour group	characteristic wind suction in kN / m ²									
		0,25	0,40	0,50	0,60	0,70	0,80	0,90	1,00	1,25	1,50
single span	I, II, III	8,77	8,77	7,37	6,47	5,83	5,34	4,98	4,67	3,98	3,29
dual span	I, II, III	3,70	3,70	3,70	3,70	3,70	3,70	3,70	3,70	3,70	3,29
multiple span	I, II, III	4,71	4,71	4,71	4,71	4,71	4,71	4,71	4,67	3,98	3,29

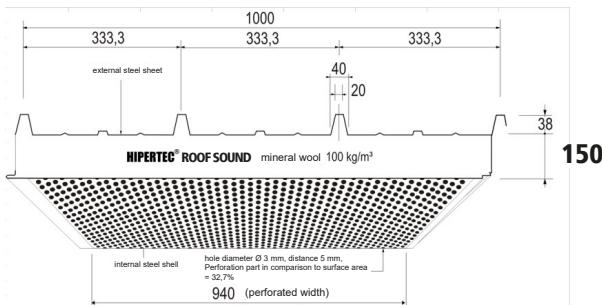
stat. system	colour group	characteristic wind suction in kN / m ²									
		1,75	2,00	2,25	2,50	2,75	3,00	3,25	3,50	4,00	5,00
single span	I, II, III	2,82	2,47	2,21	2,01	1,84	1,71	1,59	1,50	1,34	1,12
dual span	I, II, III	2,82	2,47	2,21	2,01	1,84	1,71	1,59	1,50	1,34	1,12
multiple span	I, II, III	2,82	2,47	2,21	2,01	1,84	1,71	1,59	1,50	1,34	1,12

Span table 03-15

Hipertec Roof Sound (T/P-L), d = 150 mm
 $t_N = 0,60 / 0,60 \text{ mm}$, S 320 GD



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Valid supporting widths [m] for snow loads

stat. system	colour group	characteristic snow load in kN / m²									
		0,25	0,60	0,70	0,80	0,90	1,00	1,25	1,50	1,75	2,00
single span	I, II, III	123 9,39	150 6,79	151 6,11	152 5,56	152 5,10	153 4,72	155 3,98	157 3,46	158 3,06	160 2,75
dual span	I, II, III	52 3,98 104	88 3,98 176	98 3,98 196	108 3,98 217	119 3,98 237	129 3,98 258	147 3,98 294	152 3,37 305	158 3,06 316	160 2,75 320
multiple span	I, II, III	65 4,93 129	109 4,93 218	122 4,93 243	134 4,93 269	147 4,93 294	153 4,72 306	155 3,98 309	156 3,45 312	158 3,06 316	160 2,75 320
stat. system	colour group	characteristic snow load in kN / m²									
		2,25	2,50	2,75	3,00	3,25	3,50	4,00	4,25	4,50	5,00
single span	I, II, III	161 2,50	163 2,30	165 2,13	167 1,99	169 1,87	170 1,76	174 1,59	175 1,51	177 1,45	181 1,34
dual span	I, II, III	161 2,50 323	163 2,30 326	165 2,13 330	167 1,99 334	169 1,87 338	170 1,76 340	173 1,58 346	175 1,51 350	177 1,45 355	181 1,34 362
multiple span	I, II, III	161 2,50 323	163 2,30 326	165 2,13 330	167 1,99 334	169 1,87 338	170 1,76 340	173 1,58 346	175 1,51 350	177 1,45 355	181 1,34 362

Valid supporting widths [m] for wind suction

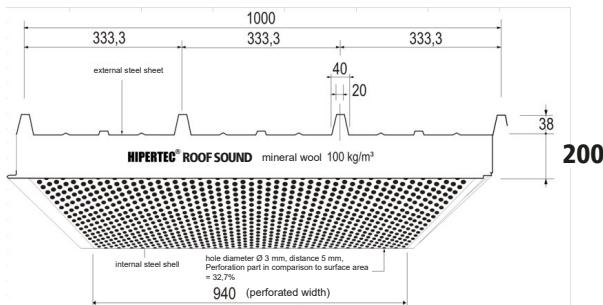
stat. system	colour group	characteristic wind suction in kN / m²									
		0,25	0,40	0,50	0,60	0,70	0,80	0,90	1,00	1,25	1,50
single span	I, II, III	9,86	9,86	8,52	7,40	6,63	6,07	5,62	5,27	4,61	4,15
dual span	I	3,99	3,99	3,99	3,99	3,99	3,99	3,99	3,99	3,99	3,99
	II	3,99	3,99	3,99	3,99	3,99	3,99	3,99	3,99	3,99	3,99
	III	3,98	3,98	3,98	3,98	3,98	3,98	3,98	3,98	3,98	3,62
multiple span	I	4,98	4,98	4,98	4,98	4,98	4,98	4,98	4,98	4,59	4,14
	II	4,98	4,98	4,98	4,98	4,98	4,98	4,98	4,98	4,59	4,14
	III	4,93	4,93	4,93	4,93	4,93	4,93	4,93	4,93	4,61	4,15
stat. system	colour group	characteristic wind suction in kN / m²									
		1,75	2,00	2,25	2,50	2,75	3,00	3,25	3,50	4,00	5,00
single span	I, II, III	3,54	3,08	2,74	2,47	2,26	2,08	1,93	1,81	1,60	1,33
dual span	I	3,52	3,08	2,74	2,47	2,26	2,08	1,93	1,81	1,60	1,33
	II	3,52	3,08	2,74	2,47	2,26	2,08	1,93	1,81	1,60	1,33
	III	3,15	2,79	2,54	2,34	2,18	2,04	1,92	1,81	1,60	1,33
multiple span	I	3,52	3,08	2,74	2,47	2,26	2,08	1,93	1,81	1,60	1,33
	II	3,52	3,08	2,74	2,47	2,26	2,08	1,93	1,81	1,60	1,33
	III	3,54	3,08	2,74	2,47	2,26	2,08	1,93	1,81	1,60	1,33

Span table 03-20

Hipertec Roof Sound (T/P-L), d = 200 mm
 $t_N = 0,60 / 0,60 \text{ mm}$, S 320 GD



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Valid supporting widths [m] for snow loads

stat. system	colour group	characteristic snow load in kN / m²									
		0,25	0,60	0,70	0,80	0,90	1,00	1,25	1,50	1,75	2,00
single span	I, II, III	158 10,92	195 8,29	195 7,49	196 6,84	197 6,30	197 5,84	199 4,94	201 4,30	202 3,80	203 3,42
dual span	I, II, III	63 4,38	103 4,38	114 4,38	125 4,38	137 4,38	148 4,38	166 4,14	173 3,70	178 3,36	183 3,08
multiple span	I, II, III	76 5,26	124 5,26	137 5,26	151 5,26	164 5,26	178 5,26	187 4,66	193 4,14	198 3,74	203 3,41
		153	247	274	301	328	355	375	386	397	406
stat. system	colour group	characteristic snow load in kN / m²									
		2,25	2,50	2,75	3,00	3,25	3,50	4,00	4,25	4,50	5,00
single span	I, II, III	204 3,10	206 2,85	208 2,64	210 2,46	211 2,30	212 2,16	215 1,94	217 1,85	218 1,76	221 1,62
dual span	I, II, III	188 2,85	192 2,66	197 2,50	201 2,36	204 2,23	208 2,12	215 1,94	217 1,85	218 1,76	221 1,62
multiple span	I, II, III	204 3,10	206 2,85	208 2,64	210 2,46	211 2,30	212 2,16	215 1,94	217 1,85	218 1,76	221 1,62
		409	412	416	419	422	424	430	434	436	443

Valid supporting widths [m] for wind suction

stat. system	colour group	characteristic wind suction in kN / m²									
		0,25	0,40	0,50	0,60	0,70	0,80	0,90	1,00	1,25	1,50
single span	I, II, III	11,37	11,37	10,48	8,95	7,94	7,21	6,65	6,20	5,39	4,83
dual span	I	4,40	4,40	4,40	4,40	4,40	4,40	4,40	4,40	4,40	3,66
	II	4,40	4,40	4,40	4,40	4,40	4,40	4,40	4,40	3,94	3,27
	III	4,40	4,40	4,40	4,40	4,40	4,20	3,28	2,94	2,50	2,25
multiple span	I	5,30	5,30	5,30	5,30	5,30	5,30	5,30	5,30	5,30	4,40
	II	5,30	5,30	5,30	5,30	5,30	5,30	5,30	5,30	5,04	4,11
	III	5,30	5,30	5,30	5,30	5,30	5,30	5,30	5,30	4,50	3,64
stat. system	colour group	characteristic wind suction in kN / m²									
		1,75	2,00	2,25	2,50	2,75	3,00	3,25	3,50	4,00	5,00
single span	I, II, III	4,42	4,10	3,66	3,28	2,98	2,73	2,52	2,35	2,07	1,68
dual span	I	3,16	2,80	2,53	2,32	2,14	2,00	1,88	1,77	1,60	1,35
	II	2,84	2,53	2,30	2,12	1,97	1,84	1,74	1,65	1,50	1,28
	III	2,08	1,95	1,84	1,76	1,68	1,61	1,56	1,48	1,36	1,18
multiple span	I	3,74	3,27	2,91	2,63	2,41	2,23	2,08	1,94	1,74	1,45
	II	3,49	3,04	2,71	2,46	2,25	2,08	1,94	1,83	1,64	1,38
	III	3,09	2,70	2,41	2,19	2,02	1,88	1,76	1,66	1,50	1,28