

Load tables ems-isolier® Cold Store Panel PU

Info 4.7.1 GB

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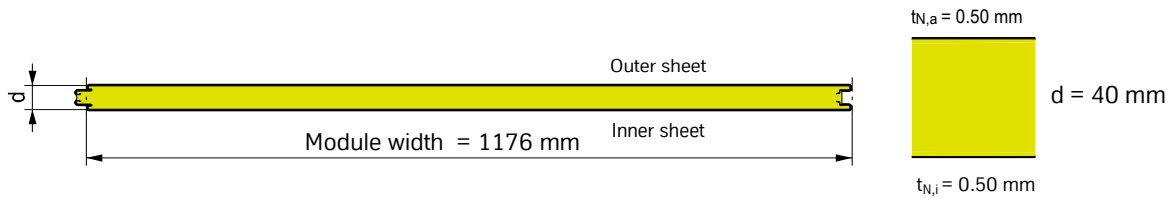
A company
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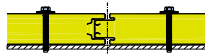


ThyssenKrupp

Load tables for preliminary design of buildings with normal internal temperatures (not valid for cold stores or chillrooms)



Type of fixing



End support:

screws with washer $d \geq 16\text{ mm}$
characteristic tensile force "pull through the sheet" $F_{z,k}(b_A) = 2.0\text{ kN/screw}$

Intermediate support:

screws with washer $d \geq 16\text{ mm}$
characteristic tensile force "pull through the sheet" $F_{z,k}(b_B) = 2.0\text{ kN/screw}$

The verification "pull out of the substructure" must be calculated separately!

Line b_A : Minimum end support width b_A in [mm] for the relevant wind-pressure load.

Line b_B : Minimum intermediate support width b_B in [mm] for the relevant wind-pressure load.

Line n_A : Number of screws per module width at the end support b_A for the relevant wind-suction load.

Line n_B : Number of screws per module width at the intermediate support b_B for the relevant wind-suction load.

Line $W_{e,10}$: Allowable wind pressure/suction load in [kN/m²] in consideration of the panel design with a deflection restriction $\max f \leq L/100$.

Line $W_{e,1}$: Allowable wind suction load in [kN/m²] in consideration of the fastener design.

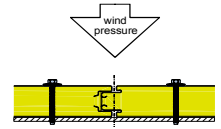
Colour group I, II, III: The following temperature differences between the cover sheets have been taken into consideration for secondary loads in the cover sheets, in accordance with the general approval issued by the building inspection authorities:

Season	Colour Group	t_{indoor}	$t_{\text{outdoor}} - t_{\text{indoor}}$
summer	I / II / III	25°C	+30 / +40 / +55 °C
winter	all	20°C	-40 °C

The tables do not replace the structural analysis required for execution of the constructional work. The allowable wind loads are specified in [kN/m²] and have been determined in accordance with the provisions of official approval no. Z-10.4-428 issued by the German building inspection authorities. The load tables contain both load and material safety factors.

Please note the maximum length supplied, especially in the case of multi-span elements.

Load tables for wind pressure



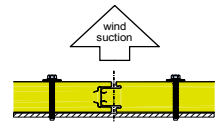
Single-span element, allowable wind pressure load allow. w_p [kN/m ²]																							
Span L[m]	1.50	1.75	2.00	2.25	2.50	2.75	3.00	3.25	3.50	3.75	4.00	4.25	4.50	4.75	5.00	5.25	5.50	5.75	6.00	6.25	6.50	6.75	7.00
$b_A = 40$ [mm]	40	40	40	40	40	40	40	40	40	40	40	40											
$W_{e,10}$	2.81	2.41	2.11	1.63	1.24	0.96	0.74	0.57	0.45	0.35	0.27	0.21											
$b_A \leq 60$ [mm]	40	40	40	40	40	40	40	40	40	40	40	40											
$W_{e,10}$	2.81	2.41	2.11	1.63	1.24	0.96	0.74	0.57	0.45	0.35	0.27	0.21											

Two-span element, allowable wind pressure load allow. w_p [kN/m ²]																							
Span L[m]	1.50	1.75	2.00	2.25	2.50	2.75	3.00	3.25	3.50	3.75	4.00	4.25	4.50	4.75	5.00	5.25	5.50	5.75	6.00	6.25	6.50	6.75	7.00
$b_A = 40$ [mm]	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40			
$W_{e,10}$	2.35	2.01	1.76	1.57	1.41	1.27	1.00	0.82	0.68	0.57	0.49	0.43	0.37	0.33	0.29	0.26	0.24	0.21	0.20	0.18			
$b_B = 60$ [mm]	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60			
$b_A \leq 60$ [mm]	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40			
$W_{e,10}$	2.81	2.41	2.11	1.87	1.61	1.27	1.00	0.82	0.68	0.57	0.49	0.43	0.37	0.33	0.29	0.26	0.24	0.21	0.20	0.18			
$b_B \leq 80$ [mm]	72	71	71	72	68	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60			

Three-span element, allowable wind pressure load allow. w_p [kN/m ²]																							
Span L[m]	1.50	1.75	2.00	2.25	2.50	2.75	3.00	3.25	3.50	3.75	4.00	4.25	4.50	4.75	5.00	5.25	5.50	5.75	6.00	6.25	6.50	6.75	7.00
$b_A = 40$ [mm]	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	
$W_{e,10}$	2.36	2.02	1.77	1.57	1.41	1.29	1.12	0.95	0.82	0.71	0.63	0.56	0.50	0.45	0.40	0.36	0.33	0.30	0.28	0.24	0.21	0.18	
$b_B = 60$ [mm]	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	
$b_A \leq 60$ [mm]	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	
$W_{e,10}$	2.81	2.41	2.11	1.87	1.61	1.33	1.12	0.95	0.82	0.71	0.63	0.56	0.50	0.45	0.40	0.36	0.33	0.30	0.28	0.24	0.21	0.18	
$b_B \leq 80$ [mm]	72	72	71	72	68	62	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	

Four-span element, allowable wind pressure load										allow. w_p [kN/m ²]													
Span L[m]	1.50	1.75	2.00	2.25	2.50	2.75	3.00	3.25	3.50	3.75	4.00	4.25	4.50	4.75	5.00	5.25	5.50	5.75	6.00	6.25	6.50	6.75	7.00
$b_A = 40$ [mm]	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40
$W_{e,10}$	2.36	2.02	1.77	1.57	1.42	1.29	1.12	0.95	0.82	0.71	0.63	0.56	0.50	0.45	0.40	0.36	0.32	0.29	0.27	0.25	0.23	0.20	0.18
$b_B = 60$ [mm]	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60
$b_A \leq 60$ [mm]	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40
$W_{e,10}$	2.81	2.41	2.11	1.87	1.61	1.33	1.12	0.95	0.82	0.71	0.63	0.56	0.50	0.45	0.40	0.36	0.32	0.29	0.27	0.25	0.23	0.20	0.18
$b_B \leq 80$ [mm]	71	72	71	71	68	62	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60

Load tables for wind suction



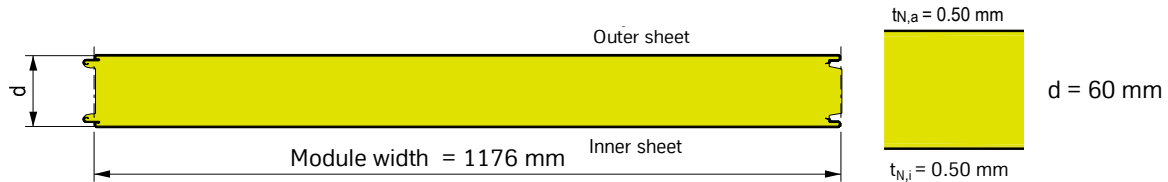
Single-span element, allowable wind suction load											allow. w_s [kN/m ²]													
Span L[m]		1.50	1.75	2.00	2.25	2.50	2.75	3.00	3.25	3.50	3.75	4.00	4.25	4.50	4.75	5.00	5.25	5.50	5.75	6.00	6.25	6.50	6.75	7.00
We,10	Colour group I-III	2.81	2.41	2.11	1.87	1.61	1.17	0.85	0.61	0.43	0.30	0.20	0.12											
$n_A = 3$		3	3	3	3	3	3	3	3	3	3	3	3											
We,1		3.40	2.92	2.55	2.27	2.04	1.86	1.70	1.57	1.46	1.36	1.28	1.20											
$n_A = 6$		6	6	6	6	6	6	6	6	6	6	6	6	6										
We,1		6.80	5.83	5.10	4.54	4.08	3.71	3.40	3.14	2.92	2.72	2.55	2.40											

Two-span element, allowable wind suction load allow. w_s [kN/m ²]																								
Span L[m]		1.50	1.75	2.00	2.25	2.50	2.75	3.00	3.25	3.50	3.75	4.00	4.25	4.50	4.75	5.00	5.25	5.50	5.75	6.00	6.25	6.50	6.75	7.00
We,10	Colour group I $n_A \leq 3$ We,1 $n_B \leq 6$	2.81	2.41	2.11	1.58	1.42	1.13	0.93	0.86	0.78	0.66	0.56	0.49	0.46	0.42	0.37	0.33	0.30	0.27	0.25	0.23			
3		3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3				
2.96		2.50	2.16	1.90	1.42	1.28	1.17	0.86	0.79	0.74	0.69	0.65	0.46	0.43	0.41	0.39	0.37	0.36	0.34	0.33				
		6	6	6	6	5	5	5	4	4	4	4	4	3	3	3	3	3	3	3	3			
We,10	Colour group II $n_A \leq 3$ We,1 $n_B \leq 6$	2.81	2.21	1.80	1.27	1.13	0.95	0.72	0.64	0.54	0.45	0.38	0.32	0.27	0.24	0.21	0.19							
3		3	3	3	3	3	3	3	3	3	3	3	3	3	3	3								
2.96		2.50	1.80	1.58	1.13	1.02	0.93	0.64	0.60	0.55	0.52	0.49	0.46	0.43	0.41	0.39								
		6	6	5	5	4	4	4	3	3	3	3	3	3	3	3	3							
We,10	Colour group III $n_A \leq 3$ We,1 $n_B \leq 6$	2.47	1.66	1.21	0.89	0.52	0.30																	
3		3	3	3	3	3	3																	
2.47		1.66	1.44	0.95	0.85	0.77																		
		5	4	4	3	3	3																	

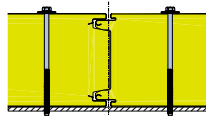
Three-span element, allowable wind suction load											allow. w_s [kN/m ²]													
Span L[m]		1.50	1.75	2.00	2.25	2.50	2.75	3.00	3.25	3.50	3.75	4.00	4.25	4.50	4.75	5.00	5.25	5.50	5.75	6.00	6.25	6.50	6.75	7.00
We,10	Colour group I	2.81	2.41	2.11	1.75	1.56	1.33	1.12	0.95	0.82	0.71	0.63	0.56	0.50	0.45	0.40	0.36	0.33	0.30	0.28	0.26	0.24	0.22	
$n_A \leq 3$		3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3		
We,1		3.15	2.69	2.35	2.08	1.56	1.41	1.30	1.19	1.11	1.03	0.97	0.91	0.86	0.82	0.77	0.74	0.70	0.67	0.64	0.62	0.48	0.46	
$n_B \leq 6$		6	6	6	6	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	4	4	
We,10	Colour group II	2.81	2.24	1.96	1.54	1.25	1.13	1.04	0.87	0.73	0.63	0.58	0.55	0.48	0.43	0.38	0.35	0.31	0.29	0.26	0.24	0.22	0.20	
$n_A \leq 3$		3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3		
We,1		3.15	2.69	1.96	1.73	1.56	1.13	1.04	0.96	0.89	0.83	0.77	0.55	0.52	0.49	0.46	0.44	0.42	0.40	0.39	0.37	0.36	0.34	
$n_B \leq 6$		6	6	5	5	5	4	4	4	4	4	4	3	3	3	3	3	3	3	3	3	3	3	
We,10	Colour group III	2.32	1.79	1.40	1.04	0.88	0.67	0.52	0.42	0.34	0.29	0.24	0.21	0.18										
$n_A \leq 3$		3	3	3	3	3	3	3	3	3	3	3	3	3										
We,1		2.63	1.79	1.56	1.39	0.93	0.85	0.78	0.72	0.67	0.62	0.58	0.55	0.52										
$n_B \leq 6$		5	4	4	4	3	3	3	3	3	3	3	3	3										

Four-span element, allowable wind suction load allow. w_s [kN/m ²]																								
Span L[m]		1.50	1.75	2.00	2.25	2.50	2.75	3.00	3.25	3.50	3.75	4.00	4.25	4.50	4.75	5.00	5.25	5.50	5.75	6.00	6.25	6.50	6.75	7.00
We,10	Colour group I	2.81	2.41	2.11	1.73	1.54	1.33	1.12	0.94	0.82	0.71	0.63	0.56	0.50	0.45	0.40	0.36	0.33	0.30	0.28	0.26	0.24	0.22	0.21
$n_A \leq 3$		3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
We,1		3.16	2.69	2.34	2.07	1.54	1.40	1.27	1.17	1.09	1.01	0.76	0.71	0.67	0.63	0.60	0.57	0.55	0.52	0.50	0.48	0.46	0.44	0.43
$n_B \leq 6$		6	6	6	6	5	5	5	5	5	5	4	4	4	4	4	4	4	4	4	4	4	4	4
We,10	Colour group II	2.78	2.24	1.95	1.52	1.23	1.12	1.00	0.82	0.68	0.61	0.57	0.49	0.43	0.38	0.34	0.30	0.27	0.25	0.23	0.21	0.19	0.17	
$n_A \leq 3$		3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	
We,1		3.16	2.24	1.95	1.72	1.54	1.12	1.02	0.94	0.87	0.81	0.57	0.53	0.50	0.48	0.45	0.43	0.41	0.39	0.38	0.36	0.35	0.33	
$n_B \leq 6$		6	5	5	5	5	4	4	4	4	4	3	3	3	3	3	3	3	3	3	3	3	3	
We,10	Colour group III	2.11	1.79	1.39	1.03	0.84	0.63	0.47	0.36	0.29	0.23	0.19	0.16											
$n_A \leq 3$		3	3	3	3	3	3	3	3	3	3	3	3											
We,1		2.11	1.79	1.56	1.38	0.92	0.84	0.76	0.70	0.65	0.61	0.57	0.53											
$n_B \leq 6$		4	4	4	4	3	3	3	3	3	3	3	3											

Load tables for preliminary design of buildings with normal internal temperatures (not valid for cold stores or chillrooms)



Type of fixing



End support:

screws with washer $d \geq 16$ mm
characteristic tensile force "pull through the sheet" $F_{z,k}(b_A) = 2.0$ kN/screw

Intermediate support:

screws with washer $d \geq 16$ mm
characteristic tensile force "pull through the sheet" $F_{z,k}(b_B) = 2.0$ kN/screw

The verification "pull out of the substructure" must be calculated separately!

Line b_A : Minimum end support width b_A in [mm] for the relevant wind-pressure load.

Line b_B : Minimum intermediate support width b_B in [mm] for the relevant wind-pressure load.

Line n_A : Number of screws per module width at the end support b_A for the relevant wind-suction load.

Line n_B : Number of screws per module width at the intermediate support b_B for the relevant wind-suction load.

Line $W_{e,10}$: Allowable wind pressure/suction load in [kN/m²] in consideration of the panel design with a deflection restriction $\max f \leq L/100$.

Line $W_{e,1}$: Allowable wind suction load in [kN/m²] in consideration of the fastener design.

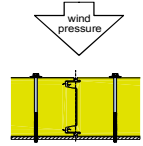
Colour group I, II, III: The following temperature differences between the cover sheets have been taken into consideration for secondary loads in the cover sheets, in accordance with the general approval issued by the building inspection authorities:

Season	Colour Group	t_{indoor}	$t_{\text{outdoor}} - t_{\text{indoor}}$
summer	I / II / III	25°C	+30 / +40 / +55 °C
winter	all	20°C	-40 °C

The tables do not replace the structural analysis required for execution of the constructional work. The allowable wind loads are specified in [kN/m²] and have been determined in accordance with the provisions of official approval no. Z-10.4-428 issued by the German building inspection authorities. The load tables contain both load and material safety factors.

Please note the maximum length supplied, especially in the case of multi-span elements.

Load tables for wind pressure



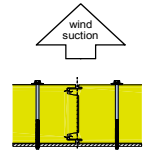
Single-span element, allowable wind pressure load allow. w_p [kN/m ²]																							
Span L[m]	1.50	1.75	2.00	2.25	2.50	2.75	3.00	3.25	3.50	3.75	4.00	4.25	4.50	4.75	5.00	5.25	5.50	5.75	6.00	6.25	6.50	6.75	7.00
$b_A = 40$ [mm]	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40				
$W_{e,10}$	3.14	2.70	2.36	2.09	1.89	1.71	1.57	1.42	1.17	0.96	0.80	0.67	0.56	0.47	0.39	0.33	0.28	0.23	0.20				
$b_A \leq 60$ [mm]	50	50	50	50	50	46	42	40	40	40	40	40	40	40	40	40	40	40	40				
$W_{e,10}$	3.90	3.34	2.92	2.60	2.34	1.99	1.67	1.42	1.17	0.96	0.80	0.67	0.56	0.47	0.39	0.33	0.28	0.23	0.20				

Two-span element, allowable wind pressure load allow. w_p [kN/m ²]																							
Span L[m]	1.50	1.75	2.00	2.25	2.50	2.75	3.00	3.25	3.50	3.75	4.00	4.25	4.50	4.75	5.00	5.25	5.50	5.75	6.00	6.25	6.50	6.75	7.00
$b_A = 40$ [mm]	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40
$W_{e,10}$	2.28	1.92	1.67	1.49	1.34	1.23	1.13	1.05	0.98	0.93	0.82	0.70	0.61	0.53	0.47	0.42	0.38	0.34	0.31	0.28	0.26	0.23	0.22
$b_B = 60$ [mm]	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60
$b_A \leq 60$ [mm]	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40
$W_{e,10}$	3.15	2.69	2.36	2.10	1.89	1.72	1.57	1.42	1.16	0.96	0.82	0.70	0.61	0.53	0.47	0.42	0.38	0.34	0.31	0.28	0.26	0.23	0.22
$b_B \leq 80$ [mm]	80	80	80	80	80	80	80	78	69	62	60	60	60	60	60	60	60	60	60	60	60	60	60
$b_A \leq 60$ [mm]	50	50	50	50	50	46	42	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40
$W_{e,10}$	3.90	3.34	2.92	2.60	2.34	1.99	1.67	1.42	1.16	0.96	0.82	0.70	0.61	0.53	0.47	0.42	0.38	0.34	0.31	0.28	0.26	0.23	0.22
$b_B \leq 100$ [mm]	99	99	99	99	99	93	85	78	69	62	60	60	60	60	60	60	60	60	60	60	60	60	60

Three-span element, allowable wind pressure load allow. w_p [kN/m ²]																							
Span L[m]	1.50	1.75	2.00	2.25	2.50	2.75	3.00	3.25	3.50	3.75	4.00	4.25	4.50	4.75	5.00	5.25	5.50	5.75	6.00	6.25	6.50	6.75	7.00
$b_A = 40$ [mm]	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40
$W_{e,10}$	2.36	2.02	1.77	1.57	1.41	1.29	1.18	1.09	1.01	0.94	0.88	0.83	0.74	0.67	0.60	0.54	0.50	0.45	0.42	0.38	0.36	0.33	0.31
$b_B = 60$ [mm]	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60
$b_A \leq 60$ [mm]	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40
$W_{e,10}$	3.14	2.70	2.36	2.10	1.89	1.72	1.57	1.42	1.23	1.07	0.94	0.83	0.74	0.67	0.60	0.54	0.50	0.45	0.42	0.38	0.36	0.33	0.31
$b_B \leq 80$ [mm]	80	80	80	80	80	80	80	78	73	68	64	60	60	60	60	60	60	60	60	60	60	60	60
$b_A \leq 60$ [mm]	50	50	50	50	50	46	42	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40
$W_{e,10}$	3.90	3.34	2.92	2.60	2.34	1.99	1.67	1.42	1.23	1.07	0.94	0.83	0.74	0.67	0.60	0.54	0.50	0.45	0.42	0.38	0.36	0.33	0.31
$b_B \leq 100$ [mm]	99	99	99	99	99	93	85	78	73	68	64	60	60	60	60	60	60	60	60	60	60	60	60

Four-span element, allowable wind pressure load											allow. w_p [kN/m ²]													
Span L[m]	1.50	1.75	2.00	2.25	2.50	2.75	3.00	3.25	3.50	3.75	4.00	4.25	4.50	4.75	5.00	5.25	5.50	5.75	6.00	6.25	6.50	6.75	7.00	
$b_A = 40$ [mm]	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	
$W_{e,10}$	2.36	2.02	1.77	1.57	1.41	1.29	1.18	1.09	1.01	0.94	0.88	0.83	0.74	0.67	0.60	0.54	0.50	0.45	0.42	0.38	0.35	0.32	0.30	
$b_B = 60$ [mm]	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	
$b_A \leq 60$ [mm]	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	
$W_{e,10}$	3.15	2.70	2.36	2.10	1.89	1.71	1.57	1.42	1.22	1.07	0.94	0.83	0.74	0.67	0.60	0.54	0.50	0.45	0.42	0.38	0.35	0.32	0.30	
$b_B \leq 80$ [mm]	80	80	80	80	80	80	80	78	73	68	64	60	60	60	60	60	60	60	60	60	60	60	60	
$b_A \leq 60$ [mm]	50	50	50	50	50	46	42	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	
$W_{e,10}$	3.90	3.34	2.92	2.60	2.34	1.98	1.67	1.42	1.22	1.07	0.94	0.83	0.74	0.67	0.60	0.54	0.50	0.45	0.42	0.38	0.35	0.32	0.30	
$b_B \leq 100$ [mm]	99	99	99	99	99	93	85	78	73	68	64	60	60	60	60	60	60	60	60	60	60	60	60	

Load tables for wind suction



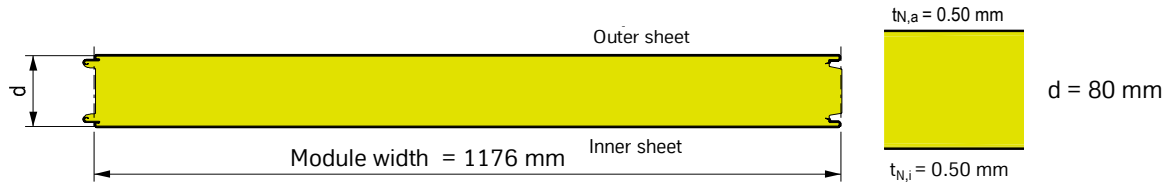
Single-span element, allowable wind suction load											allow. w_s [kN/m ²]													
Span L[m]		1.50	1.75	2.00	2.25	2.50	2.75	3.00	3.25	3.50	3.75	4.00	4.25	4.50	4.75	5.00	5.25	5.50	5.75	6.00	6.25	6.50	6.75	7.00
We,10 $n_A = 3$ We,1 $n_A = 6$ We,1	Colour group I-III	3.90	3.34	2.92	2.60	2.34	1.99	1.67	1.42	1.23	1.07	0.94	0.80	0.64	0.51	0.41	0.32	0.25	0.19	0.14				
		3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3				
		3.40	2.92	2.55	2.27	2.04	1.86	1.70	1.57	1.46	1.36	1.28	1.20	1.13	1.07	1.02	0.97	0.93	0.89	0.85				
		6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6				
		6.80	5.83	5.10	4.54	4.08	3.71	3.40	3.14	2.92	2.72	2.55	2.40	2.27	2.15	2.04	1.94	1.86	1.77	1.70				

Two-span element, allowable wind suction load allow. w_s [kN/m ²]																									
Span L[m]		1.50	1.75	2.00	2.25	2.50	2.75	3.00	3.25	3.50	3.75	4.00	4.25	4.50	4.75	5.00	5.25	5.50	5.75	6.00	6.25	6.50	6.75	7.00	
We,10	Colour group I	3.04	2.56	2.21	1.94	1.73	1.53	1.18	1.09	1.00	0.84	0.70	0.66	0.62	0.58	0.53	0.47	0.42	0.38	0.34	0.33	0.32	0.29	0.27	
$n_A \leq 3$		3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	
We,1 $n_B \leq 6$		3.04	2.56	2.21	1.94	1.73	1.56	1.42	1.09	1.00	0.93	0.87	0.66	0.62	0.58	0.55	0.53	0.50	0.48	0.46	0.44	0.32	0.31	0.29	0.29
We,10	Colour group II	6	6	6	6	6	6	6	5	5	5	5	4	4	4	4	4	4	4	4	4	3	3	3	3
$n_A \leq 3$		3.04	2.56	2.21	1.84	1.44	1.30	0.95	0.87	0.80	0.67	0.55	0.49	0.46	0.40	0.35	0.30	0.27	0.24	0.21	0.19	0.17	0.16	0.15	
We,1 $n_B \leq 6$		3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
We,10	Colour group III	3.04	2.56	2.21	1.94	1.44	1.30	1.18	0.87	0.80	0.75	0.70	0.66	0.46	0.44	0.42	0.39	0.38	0.36	0.34	0.33	0.32	0.31	0.29	0.29
$n_A \leq 3$		6	6	6	6	5	5	5	4	4	4	4	4	3	3	3	3	3	3	3	3	3	3	3	3
We,1 $n_B \leq 6$		3.04	2.56	1.84	1.29	1.13	0.78	0.58	0.37	0.23															
We,10	Colour group III	3	3	3	3	3	3	3	3	3															
$n_A \leq 3$		3.04	2.56	1.84	1.29	1.15	1.04	0.71	0.65	0.60															
We,1 $n_B \leq 6$		6	6	5	4	4	4	3	3	3															

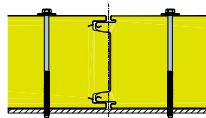
Three-span element, allowable wind suction load											allow. w_s [kN/m ²]													
Span L[m]		1.50	1.75	2.00	2.25	2.50	2.75	3.00	3.25	3.50	3.75	4.00	4.25	4.50	4.75	5.00	5.25	5.50	5.75	6.00	6.25	6.50	6.75	7.00
We,10	Colour group I	3.18	2.71	2.36	2.09	1.88	1.70	1.40	1.20	1.11	1.04	0.94	0.83	0.74	0.66	0.60	0.54	0.50	0.45	0.42	0.38	0.36	0.33	0.31
$n_A \leq 3$		3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
We,1		3.18	2.71	2.36	2.09	1.88	1.70	1.56	1.44	1.11	1.04	0.97	0.91	0.86	0.82	0.78	0.74	0.70	0.67	0.65	0.62	0.60	0.46	0.44
$n_B \leq 6$		6	6	6	6	6	6	6	6	5	5	5	5	5	5	5	5	5	5	5	5	5	4	4
We,10	Colour group II	3.18	2.71	2.36	1.78	1.57	1.42	1.21	0.98	0.89	0.83	0.78	0.73	0.64	0.57	0.51	0.45	0.42	0.40	0.39	0.36	0.33	0.30	0.28
$n_A \leq 3$		3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
We,1		3.18	2.71	2.36	2.09	1.57	1.42	1.30	1.20	1.11	0.83	0.78	0.73	0.69	0.65	0.62	0.59	0.56	0.54	0.39	0.37	0.36	0.34	0.33
$n_B \leq 6$		6	6	6	6	5	5	5	5	5	4	4	4	4	4	4	4	4	4	3	3	3	3	3
We,10	Colour group III	3.16	2.26	1.60	1.39	1.25	0.92	0.78	0.72	0.58	0.47	0.39	0.33	0.29	0.25	0.21	0.19	0.17						
$n_A \leq 3$		3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3						
We,1		3.18	2.26	1.97	1.39	1.25	1.14	1.04	0.72	0.67	0.62	0.58	0.55	0.52	0.49	0.47	0.44	0.42						
$n_B \leq 6$		6	5	5	4	4	4	4	3	3	3	3	3	3	3	3	3	3						

Four-span element, allowable wind suction load allow. w_s [kN/m ²]																									
Span L[m]		1.50	1.75	2.00	2.25	2.50	2.75	3.00	3.25	3.50	3.75	4.00	4.25	4.50	4.75	5.00	5.25	5.50	5.75	6.00	6.25	6.50	6.75	7.00	
We,10	Colour group I	3.20	2.72	2.37	2.09	1.87	1.69	1.38	1.18	1.10	1.02	0.92	0.79	0.70	0.64	0.60	0.54	0.50	0.45	0.42	0.38	0.36	0.33	0.31	
$n_A \leq 3$		3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	
We,1		3.20	2.72	2.37	2.09	1.87	1.69	1.54	1.42	1.10	1.02	0.95	0.90	0.84	0.80	0.61	0.58	0.55	0.52	0.50	0.48	0.46	0.45	0.43	
$n_B \leq 6$		6	6	6	6	6	6	6	6	5	5	5	5	5	5	4	4	4	4	4	4	4	4	4	4
We,10	Colour group II	3.20	2.72	2.22	1.74	1.56	1.41	1.19	0.95	0.88	0.82	0.76	0.68	0.59	0.52	0.46	0.43	0.41	0.38	0.35	0.32	0.29	0.27	0.25	
$n_A \leq 3$		3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	
We,1		3.20	2.72	2.36	2.09	1.56	1.41	1.29	1.18	0.88	0.82	0.76	0.72	0.68	0.64	0.61	0.58	0.41	0.39	0.38	0.36	0.35	0.33	0.32	
$n_B \leq 6$		6	6	6	6	5	5	5	5	4	4	4	4	4	4	4	4	3	3	3	3	3	3	3	3
We,10	Colour group III	2.67	1.82	1.58	1.39	1.25	0.91	0.77	0.68	0.53	0.42	0.34	0.28	0.23	0.20	0.16									
$n_A \leq 3$		3	3	3	3	3	3	3	3	3	3	3	3	3	3	3									
We,1		2.67	2.27	1.58	1.39	1.25	1.13	1.03	0.71	0.66	0.61	0.57	0.54	0.51	0.48	0.45									
$n_B \leq 6$		5	5	4	4	4	4	4	3	3	3	3	3	3	3	3									

Load tables for preliminary design of buildings with normal internal temperatures (not valid for cold stores or chillrooms)



Type of fixing



End support:

screws with washer $d \geq 16$ mm
characteristic tensile force "pull through the sheet" $F_{z,k}(b_A) = 2.0$ kN/screw

Intermediate support:

screws with washer $d \geq 16$ mm
characteristic tensile force "pull through the sheet" $F_{z,k}(b_B) = 2.0$ kN/screw

The verification "pull out of the substructure" must be calculated separately!

Line b_A : Minimum end support width b_A in [mm] for the relevant wind-pressure load.

Line b_B : Minimum intermediate support width b_B in [mm] for the relevant wind-pressure load.

Line n_A : Number of screws per module width at the end support b_A for the relevant wind-suction load.

Line n_B : Number of screws per module width at the intermediate support b_B for the relevant wind-suction load.

Line $W_{e,10}$: Allowable wind pressure/suction load in [kN/m²] in consideration of the panel design with a deflection restriction $\max f \leq L/100$.

Line $W_{e,1}$: Allowable wind suction load in [kN/m²] in consideration of the fastener design.

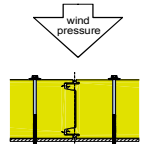
Colour group I, II, III: The following temperature differences between the cover sheets have been taken into consideration for secondary loads in the cover sheets, in accordance with the general approval issued by the building inspection authorities:

Season	Colour Group	t_{indoor}	$t_{\text{outdoor}} - t_{\text{indoor}}$
summer	I / II / III	25°C	+30 / +40 / +55 °C
winter	all	20°C	-40 °C

The tables do not replace the structural analysis required for execution of the constructional work. The allowable wind loads are specified in [kN/m²] and have been determined in accordance with the provisions of official approval no. Z-10.4-428 issued by the German building inspection authorities. The load tables contain both load and material safety factors.

Please note the maximum length supplied, especially in the case of multi-span elements.

Load tables for wind pressure



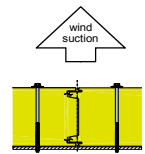
Single-span element, allowable wind pressure load allow. w_p [kN/m ²]																							
Span L[m]	1.50	1.75	2.00	2.25	2.50	2.75	3.00	3.25	3.50	3.75	4.00	4.25	4.50	4.75	5.00	5.25	5.50	5.75	6.00	6.25	6.50	6.75	7.00
$b_A = 40$ [mm]	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40
$W_{e,10}$	3.14	2.70	2.36	2.09	1.89	1.71	1.57	1.45	1.35	1.26	1.18	1.10	0.98	0.88	0.79	0.68	0.59	0.51	0.45	0.39	0.34	0.30	0.26
$b_A \leq 60$ [mm]	60	60	60	60	60	60	56	52	48	45	42	40	40	40	40	40	40	40	40	40	40	40	40
$W_{e,10}$	4.72	4.04	3.54	3.14	2.83	2.57	2.21	1.89	1.63	1.42	1.24	1.10	0.98	0.88	0.79	0.68	0.59	0.51	0.45	0.39	0.34	0.30	0.26
$b_A \leq 80$ [mm]	66	66	66	66	66	61	56	52	48	45	42	40	40	40	40	40	40	40	40	40	40	40	40
$W_{e,10}$	5.22	4.47	3.92	3.48	3.13	2.63	2.21	1.89	1.63	1.42	1.24	1.10	0.98	0.88	0.79	0.68	0.59	0.51	0.45	0.39	0.34	0.30	0.26

Two-span element, allowable wind pressure load allow. w_p [kN/m ²]																							
Span L[m]	1.50	1.75	2.00	2.25	2.50	2.75	3.00	3.25	3.50	3.75	4.00	4.25	4.50	4.75	5.00	5.25	5.50	5.75	6.00	6.25	6.50	6.75	7.00
$b_A = 40$ [mm]	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40
$W_{e,10}$	2.25	1.87	1.62	1.43	1.28	1.17	1.08	1.00	0.94	0.88	0.83	0.79	0.75	0.72	0.67	0.59	0.53	0.47	0.43	0.39	0.35	0.32	0.30
$b_B = 60$ [mm]	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60
$b_A \leq 60$ [mm]	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40
$W_{e,10}$	3.15	2.69	2.36	2.09	1.87	1.70	1.56	1.44	1.35	1.26	1.18	1.02	0.88	0.76	0.67	0.59	0.53	0.47	0.43	0.39	0.35	0.32	0.30
$b_B \leq 80$ [mm]	80	80	80	80	80	80	80	80	80	80	80	74	68	63	60	60	60	60	60	60	60	60	60
$b_A \leq 80$ [mm]	63	62	62	62	62	61	56	52	48	45	41	40	40	40	40	40	40	40	40	40	40	40	40
$W_{e,10}$	4.91	4.21	3.68	3.27	2.95	2.63	2.21	1.89	1.63	1.42	1.20	1.02	0.88	0.76	0.67	0.59	0.53	0.47	0.43	0.39	0.35	0.32	0.30
$b_B \leq 125$ [mm]	125	125	125	125	125	123	112	104	97	90	81	74	68	63	60	60	60	60	60	60	60	60	60

Three-span element, allowable wind pressure load allow. w_p [kN/m ²]																								
Span L[m]	1.50	1.75	2.00	2.25	2.50	2.75	3.00	3.25	3.50	3.75	4.00	4.25	4.50	4.75	5.00	5.25	5.50	5.75	6.00	6.25	6.50	6.75	7.00	
$b_A = 40$ [mm]	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	
$W_{e,10}$	2.36	2.02	1.77	1.57	1.41	1.29	1.18	1.09	1.01	0.94	0.88	0.83	0.79	0.74	0.71	0.67	0.64	0.60	0.55	0.51	0.47	0.44	0.41	
$b_B = 60$ [mm]	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	
$b_A \leq 60$ [mm]	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	
$W_{e,10}$	3.14	2.69	2.36	2.10	1.89	1.71	1.57	1.45	1.35	1.26	1.18	1.10	0.98	0.88	0.80	0.72	0.66	0.60	0.55	0.51	0.47	0.44	0.41	
$b_B \leq 80$ [mm]	80	80	80	80	80	80	80	80	80	80	80	79	75	71	68	64	61	60	60	60	60	60	60	
$b_A \leq 80$ [mm]	63	63	63	62	63	61	56	52	48	45	42	40	40	40	40	40	40	40	40	40	40	40	40	
$W_{e,10}$	4.91	4.21	3.69	3.28	2.95	2.63	2.21	1.89	1.63	1.42	1.25	1.10	0.98	0.88	0.80	0.72	0.66	0.60	0.55	0.51	0.47	0.44	0.41	
$b_B \leq 125$ [mm]	125	125	125	125	125	123	113	104	97	90	84	79	75	71	68	64	61	60	60	60	60	60	60	

Four-span element, allowable wind pressure load											allow. w_p [kN/m ²]													
Span L[m]	1.50	1.75	2.00	2.25	2.50	2.75	3.00	3.25	3.50	3.75	4.00	4.25	4.50	4.75	5.00	5.25	5.50	5.75	6.00	6.25	6.50	6.75	7.00	
$b_A = 40$ [mm]	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	
$W_{e,10}$	2.36	2.02	1.77	1.57	1.41	1.29	1.18	1.09	1.01	0.94	0.88	0.83	0.79	0.74	0.71	0.67	0.64	0.60	0.55	0.51	0.47	0.44	0.40	
$b_B = 60$ [mm]	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	
$b_A \leq 60$ [mm]	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	
$W_{e,10}$	3.14	2.70	2.36	2.10	1.89	1.71	1.57	1.45	1.35	1.26	1.18	1.10	0.98	0.88	0.80	0.72	0.66	0.60	0.55	0.51	0.47	0.44	0.40	
$b_B \leq 80$ [mm]	80	80	80	80	80	80	80	80	80	80	80	79	75	71	68	64	61	60	60	60	60	60	60	
$b_A \leq 80$ [mm]	63	63	62	62	63	61	56	52	48	45	42	40	40	40	40	40	40	40	40	40	40	40	40	
$W_{e,10}$	4.91	4.21	3.68	3.28	2.95	2.64	2.21	1.89	1.62	1.42	1.25	1.10	0.98	0.88	0.80	0.72	0.66	0.60	0.55	0.51	0.47	0.44	0.40	
$b_B \leq 125$ [mm]	125	125	125	125	125	123	113	104	96	90	85	79	75	71	68	64	61	60	60	60	60	60	60	

Load tables for wind suction



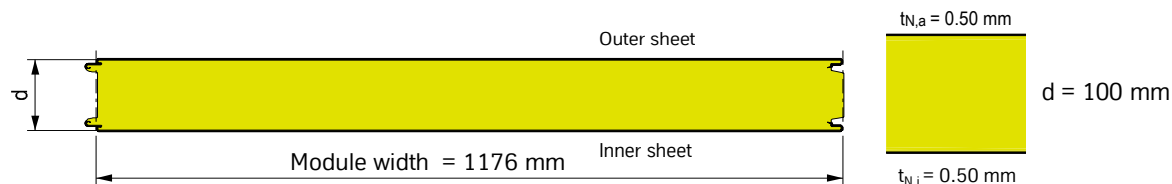
Single-span element, allowable wind suction load											allow. w_s [kN/m ²]													
Span L[m]		1.50	1.75	2.00	2.25	2.50	2.75	3.00	3.25	3.50	3.75	4.00	4.25	4.50	4.75	5.00	5.25	5.50	5.75	6.00	6.25	6.50	6.75	7.00
We,10	Colour group -III	5.22	4.47	3.91	3.48	3.13	2.63	2.21	1.89	1.63	1.42	1.24	1.10	0.98	0.88	0.80	0.72	0.66	0.60	0.51	0.43	0.36	0.30	0.25
		3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
We,1		3.40	2.92	2.55	2.27	2.04	1.86	1.70	1.57	1.46	1.36	1.28	1.20	1.13	1.07	1.02	0.97	0.93	0.89	0.85	0.82	0.78	0.76	0.73
n _A = 3		6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6
We,1		6.80	5.83	5.10	4.54	4.08	3.71	3.40	3.14	2.92	2.72	2.55	2.40	2.27	2.15	2.04	1.94	1.86	1.77	1.70	1.63	1.57	1.51	1.46
n _A = 6																								

Two-span element, allowable wind suction load allow. w_s [kN/m ²]																									
Span L[m]		1.50	1.75	2.00	2.25	2.50	2.75	3.00	3.25	3.50	3.75	4.00	4.25	4.50	4.75	5.00	5.25	5.50	5.75	6.00	6.25	6.50	6.75	7.00	
We,10	Colour group I	3.10	2.61	2.25	1.97	1.76	1.58	1.44	1.32	1.14	0.94	0.88	0.83	0.76	0.65	0.56	0.53	0.51	0.48	0.46	0.43	0.39	0.36	0.33	
$n_A \leq 4$		3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	
We,1 $n_B \leq 6$		3.10	2.61	2.25	1.97	1.76	1.58	1.44	1.32	1.22	1.13	0.88	0.83	0.78	0.74	0.70	0.66	0.51	0.48	0.46	0.44	0.42	0.41	0.39	
We,10	Colour group II	6	6	6	6	6	6	6	6	6	6	5	5	5	5	5	5	4	4	4	4	4	4	4	4
$n_A \leq 4$		3.10	2.61	2.25	1.97	1.76	1.51	1.20	1.10	0.92	0.76	0.71	0.66	0.60	0.50	0.43	0.40	0.38	0.35	0.31	0.28	0.25	0.23	0.21	
We,1 $n_B \leq 6$		3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
We,10	Colour group III	3.10	2.61	2.25	1.97	1.76	1.58	1.20	1.10	1.02	0.94	0.71	0.66	0.62	0.59	0.56	0.53	0.38	0.36	0.35	0.33	0.32	0.31	0.30	
$n_A \leq 4$		6	6	6	6	6	6	5	5	5	5	4	4	4	4	4	4	3	3	3	3	3	3	3	
We,1 $n_B \leq 6$		3.10	2.61	2.25	1.65	1.44	1.06	0.96	0.61	0.58	0.39	0.26													
$n_A \leq 4$	Colour group III	3	3	3	3	3	3	3	3	3	3	3													
We,1		3.10	2.61	2.25	1.65	1.46	1.06	0.96	0.88	0.60	0.57	0.53													
$n_B \leq 6$		6	6	6	5	5	4	4	4	3	3	3													

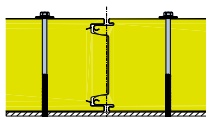
Three-span element, allowable wind suction load											allow. w_s [kN/m ²]														
Span L[m]		1.50	1.75	2.00	2.25	2.50	2.75	3.00	3.25	3.50	3.75	4.00	4.25	4.50	4.75	5.00	5.25	5.50	5.75	6.00	6.25	6.50	6.75	7.00	
We,10	Colour group I	3.20	2.73	2.37	2.10	1.89	1.71	1.57	1.44	1.34	1.14	0.97	0.92	0.86	0.82	0.78	0.71	0.64	0.58	0.53	0.50	0.47	0.44	0.41	
$n_A \leq 4$		4	4	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	
We,1 $n_B \leq 6$		3.20	2.73	2.37	2.10	1.89	1.71	1.57	1.44	1.34	1.25	1.17	0.92	0.86	0.82	0.78	0.74	0.71	0.67	0.65	0.62	0.60	0.57	0.55	
We,10	Colour group II	6	6	6	6	6	6	6	6	6	6	6	5	5	5	5	5	5	5	5	5	5	5	5	5
$n_A \leq 4$		3.20	2.73	2.37	2.10	1.89	1.49	1.30	1.20	1.11	0.98	0.82	0.73	0.69	0.65	0.62	0.59	0.55	0.50	0.46	0.42	0.38	0.35	0.33	
We,1 $n_B \leq 6$		4	4	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
We,10	Colour group III	3.20	2.73	2.37	2.10	1.89	1.71	1.30	1.20	1.11	1.04	0.97	0.91	0.69	0.65	0.62	0.59	0.56	0.54	0.52	0.50	0.48	0.46	0.44	
$n_A \leq 4$		6	6	6	6	6	6	5	5	5	5	5	5	4	4	4	4	4	4	4	4	4	4	4	
We,1 $n_B \leq 6$		3.20	2.73	1.98	1.75	1.26	1.14	1.04	0.84	0.67	0.62	0.58	0.48	0.41	0.35	0.30	0.27	0.23	0.21	0.19	0.17	0.15	0.14	0.13	
We,10	Colour group III	4	4	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	
$n_A \leq 4$		3.20	2.73	1.98	1.75	1.57	1.14	1.04	0.96	0.89	0.83	0.58	0.55	0.52	0.49	0.47	0.44	0.42	0.40	0.39	0.37	0.36	0.34	0.33	
We,1 $n_B \leq 6$		6	6	5	5	5	4	4	4	4	4	3	3	3	3	3	3	3	3	3	3	3	3	3	3

Four-span element, allowable wind suction load allow. w_s [kN/m ²]																								
Span L[m]		1.50	1.75	2.00	2.25	2.50	2.75	3.00	3.25	3.50	3.75	4.00	4.25	4.50	4.75	5.00	5.25	5.50	5.75	6.00	6.25	6.50	6.75	7.00
We,10	Colour group I	3.23	2.75	2.39	2.11	1.89	1.71	1.56	1.43	1.33	1.12	0.96	0.90	0.85	0.80	0.76	0.67	0.60	0.54	0.51	0.48	0.47	0.44	0.41
$n_A \leq 4$		4	4	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
We,1		3.23	2.75	2.39	2.11	1.89	1.71	1.56	1.43	1.33	1.23	1.15	0.90	0.85	0.80	0.76	0.72	0.69	0.66	0.63	0.48	0.47	0.45	0.43
$n_B \leq 6$		6	6	6	6	6	6	6	6	6	6	6	6	5	5	5	5	5	5	5	5	4	4	4
We,10	Colour group II	3.23	2.75	2.39	2.11	1.80	1.48	1.30	1.19	1.11	0.95	0.79	0.72	0.68	0.64	0.61	0.57	0.51	0.46	0.41	0.37	0.35	0.34	0.32
$n_A \leq 4$		4	4	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
We,1		3.23	2.75	2.39	2.11	1.89	1.71	1.30	1.19	1.11	1.03	0.96	0.90	0.68	0.64	0.61	0.58	0.55	0.53	0.50	0.48	0.47	0.45	0.32
$n_B \leq 6$		6	6	6	6	6	6	5	5	5	5	5	5	5	4	4	4	4	4	4	4	4	4	4
We,10	Colour group III	2.69	2.29	1.66	1.41	1.26	1.14	1.04	0.84	0.66	0.62	0.55	0.45	0.37	0.30	0.26	0.22	0.19						
$n_A \leq 4$		3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3						
We,1		2.69	2.29	1.99	1.76	1.26	1.14	1.04	0.96	0.88	0.62	0.58	0.54	0.51	0.48	0.46	0.43	0.41						
$n_B \leq 6$		5	5	5	5	4	4	4	4	4	4	3	3	3	3	3	3	3						

Load tables for preliminary design of buildings with normal internal temperatures (not valid for cold stores or chillrooms)



Type of fixing



End support:

screws with washer $d \geq 16$ mm
characteristic tensile force "pull through the sheet" $F_{z,k}(b_A) = 2.0$ kN/screw

Intermediate support:

screws with washer $d \geq 16$ mm
characteristic tensile force "pull through the sheet" $F_{z,k}(b_B) = 2.0$ kN/screw

The verification "pull out of the substructure" must be calculated separately!

Line b_A : Minimum end support width b_A in [mm] for the relevant wind-pressure load.

Line b_B : Minimum intermediate support width b_B in [mm] for the relevant wind-pressure load.

Line n_A : Number of screws per module width at the end support b_A for the relevant wind-suction load.

Line n_B : Number of screws per module width at the intermediate support b_B for the relevant wind-suction load.

Line $W_{e,10}$: Allowable wind pressure/suction load in [kN/m²] in consideration of the panel design with a deflection restriction $\max f \leq L/100$.

Line $W_{e,1}$: Allowable wind suction load in [kN/m²] in consideration of the fastener design.

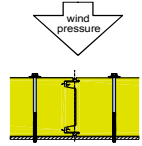
Colour group I, II, III: The following temperature differences between the cover sheets have been taken into consideration for secondary loads in the cover sheets, in accordance with the general approval issued by the building inspection authorities:

Season	Colour Group	t_{indoor}	$t_{\text{outdoor}} - t_{\text{indoor}}$
summer	I / II / III	25°C	+30 / +40 / +55 °C
winter	all	20°C	-40 °C

The tables do not replace the structural analysis required for execution of the constructional work. The allowable wind loads are specified in [kN/m²] and have been determined in accordance with the provisions of official approval no. Z-10.4-428 issued by the German building inspection authorities. The load tables contain both load and material safety factors.

Please note the maximum length supplied, especially in the case of multi-span elements.

Load tables for wind pressure

**Single-span element, allowable wind pressure load allow. w_p [kN/m²]**

Span L [m]	2.00	2.25	2.50	2.75	3.00	3.25	3.50	3.75	4.00	4.25	4.50	4.75	5.00	5.25	5.50	5.75	6.00	6.25	6.50	6.75	7.00	7.25	7.50
$b_A = 40$ [mm]	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40
$W_{e,10}$	2.36	2.09	1.89	1.71	1.57	1.45	1.35	1.26	1.18	1.11	1.05	0.99	0.94	0.90	0.82	0.75	0.69	0.63	0.59	0.52	0.46	0.41	0.37
$b_A \leq 60$ [mm]	60	60	60	60	60	60	60	56	52	49	47	44	42	40	40	40	40	40	40	40	40	40	40
$W_{e,10}$	3.54	3.14	2.83	2.57	2.36	2.18	2.02	1.76	1.55	1.37	1.22	1.10	0.99	0.90	0.82	0.75	0.69	0.63	0.59	0.52	0.46	0.41	0.37
$b_A \leq 80$ [mm]	76	76	76	76	70	65	60	56	52	49	47	44	42	40	40	40	40	40	40	40	40	40	40
$W_{e,10}$	4.46	3.96	3.56	3.24	2.75	2.34	2.02	1.76	1.55	1.37	1.22	1.10	0.99	0.90	0.82	0.75	0.69	0.63	0.59	0.52	0.46	0.41	0.37

Two-span element, allowable wind pressure load allow. w_p [kN/m²]

Span L [m]	2.00	2.25	2.50	2.75	3.00	3.25	3.50	3.75	4.00	4.25	4.50	4.75	5.00	5.25	5.50	5.75	6.00	6.25	6.50	6.75	7.00	7.25	7.50
$b_A = 40$ [mm]	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40
$W_{e,10}$	1.59	1.39	1.25	1.13	1.04	0.96	0.90	0.84	0.80	0.76	0.72	0.69	0.66	0.63	0.61	0.58	0.56	0.51	0.46	0.42	0.39	0.36	0.33
$b_B = 60$ [mm]	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60
$b_A \leq 60$ [mm]	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40
$W_{e,10}$	2.36	2.07	1.85	1.67	1.53	1.41	1.31	1.23	1.16	1.09	1.04	0.99	0.90	0.79	0.70	0.63	0.56	0.51	0.46	0.42	0.39	0.36	0.33
$b_B \leq 80$ [mm]	80	80	80	80	80	80	80	80	80	80	80	80	77	72	68	64	60	60	60	60	60	60	60
$b_A \leq 80$ [mm]	63	63	62	62	62	63	60	56	52	49	46	42	40	40	40	40	40	40	40	40	40	40	40
$W_{e,10}$	3.69	3.28	2.95	2.68	2.46	2.27	2.02	1.76	1.55	1.37	1.20	1.04	0.90	0.79	0.70	0.63	0.56	0.51	0.46	0.42	0.39	0.36	0.33
$b_B \leq 125$ [mm]	125	125	125	125	125	125	120	112	105	99	92	83	77	72	68	64	60	60	60	60	60	60	60

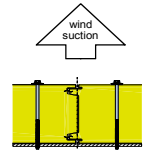
Three-span element, allowable wind pressure load allow. w_p [kN/m²]

Span L [m]	2.00	2.25	2.50	2.75	3.00	3.25	3.50	3.75	4.00	4.25	4.50	4.75	5.00	5.25	5.50	5.75	6.00	6.25	6.50	6.75	7.00	7.25	7.50
$b_A = 40$ [mm]	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40
$W_{e,10}$	1.77	1.57	1.41	1.29	1.18	1.09	1.01	0.94	0.88	0.83	0.79	0.74	0.71	0.67	0.64	0.62	0.59	0.57	0.54	0.52	0.50	0.47	0.44
$b_B = 60$ [mm]	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60
$b_A \leq 60$ [mm]	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40
$W_{e,10}$	2.36	2.09	1.89	1.71	1.57	1.45	1.35	1.26	1.18	1.11	1.05	0.99	0.94	0.90	0.82	0.75	0.69	0.63	0.59	0.54	0.50	0.47	0.44
$b_B \leq 80$ [mm]	80	80	80	80	80	80	80	80	80	80	80	80	80	80	76	73	70	67	65	62	60	60	60
$b_A \leq 80$ [mm]	62	63	62	63	63	63	60	56	52	49	47	44	42	40	40	40	40	40	40	40	40	40	40
$W_{e,10}$	3.68	3.28	2.95	2.68	2.46	2.27	2.02	1.76	1.55	1.37	1.22	1.10	0.99	0.90	0.82	0.75	0.69	0.63	0.59	0.54	0.50	0.47	0.44
$b_B \leq 125$ [mm]	125	125	125	125	125	125	120	112	105	99	93	88	84	80	76	73	70	67	65	62	60	60	60

Four-span element, allowable wind pressure load allow. w_p [kN/m²]

Span L [m]	2.00	2.25	2.50	2.75	3.00	3.25	3.50	3.75	4.00	4.25	4.50	4.75	5.00	5.25	5.50	5.75	6.00	6.25	6.50	6.75	7.00	7.25	7.50
$b_A = 40$ [mm]	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40
$W_{e,10}$	1.77	1.57	1.41	1.29	1.18	1.09	1.01	0.94	0.88	0.83	0.79	0.74	0.71	0.67	0.64	0.62	0.59	0.57	0.54	0.52	0.50	0.47	0.44
$b_B = 60$ [mm]	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60
$b_A \leq 60$ [mm]	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40
$W_{e,10}$	2.36	2.10	1.89	1.71	1.57	1.45	1.35	1.26	1.18	1.11	1.05	0.99	0.94	0.90	0.82	0.75	0.69	0.63	0.59	0.54	0.50	0.47	0.44
$b_B \leq 80$ [mm]	80	80	80	80	80	80	80	80	80	80	80	80	80	80	76	73	70	67	65	62	60	60	60
$b_A \leq 80$ [mm]	63	63	62	62	63	63	60	56	52	49	47	44	42	40	40	40	40	40	40	40	40	40	40
$W_{e,10}$	3.69	3.28	2.95	2.68	2.46	2.27	2.02	1.76	1.55	1.37	1.22	1.10	0.99	0.90	0.82	0.75	0.69	0.63	0.59	0.54	0.50	0.47	0.44
$b_B \leq 125$ [mm]	125	125	125	125	125	125	120	112	105	99	93	88	84	80	76	73	70	67	65	62	60	60	60

Load tables for wind suction



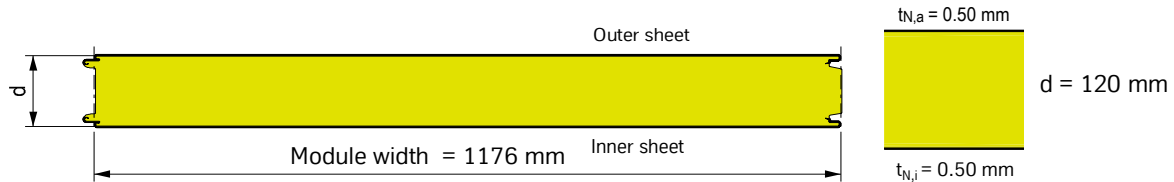
Single-span element, allowable wind suction load										allow. w_s [kN/m ²]														
Span L[m]		2.00	2.25	2.50	2.75	3.00	3.25	3.50	3.75	4.00	4.25	4.50	4.75	5.00	5.25	5.50	5.75	6.00	6.25	6.50	6.75	7.00	7.25	7.50
We,10 $n_A = 3$ We,1 $n_A = 6$ We,1	Colour group -III	4.46	3.96	3.56	3.24	2.75	2.34	2.02	1.76	1.55	1.37	1.22	1.10	0.99	0.90	0.82	0.75	0.69	0.63	0.59	0.54	0.50	0.47	0.43
		3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
		2.55	2.27	2.04	1.86	1.70	1.57	1.46	1.36	1.28	1.20	1.13	1.07	1.02	0.97	0.93	0.89	0.85	0.82	0.78	0.76	0.73	0.70	0.68
		6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6
		5.10	4.54	4.08	3.71	3.40	3.14	2.92	2.72	2.55	2.40	2.27	2.15	2.04	1.94	1.86	1.77	1.70	1.63	1.57	1.51	1.46	1.41	1.36

Two-span element, allowable wind suction load allow. w_s [kN/m ²]																								
Span L[m]		2.00	2.25	2.50	2.75	3.00	3.25	3.50	3.75	4.00	4.25	4.50	4.75	5.00	5.25	5.50	5.75	6.00	6.25	6.50	6.75	7.00	7.25	7.50
We,10	Colour group I	2.29	2.01	1.78	1.61	1.46	1.34	1.23	1.15	1.07	0.88	0.79	0.74	0.70	0.67	0.59	0.52	0.46	0.44	0.43	0.41	0.40	0.38	0.36
$n_A \leq 4$		3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
We,1 $n_B \leq 6$		2.29 6	2.01 6	1.78 6	1.61 6	1.46 6	1.34 6	1.23 6	1.15 6	1.07 6	1.00 6	0.94 6	0.74 5	0.70 5	0.67 5	0.63 5	0.61 5	0.58 5	0.56 5	0.43 4	0.41 4	0.40 4	0.38 4	0.37 4
We,10	Colour group II	2.29	2.01	1.78	1.61	1.46	1.21	1.03	0.95	0.86	0.68	0.63	0.59	0.56	0.52	0.45	0.39	0.35	0.33	0.32	0.30	0.27	0.25	0.22
$n_A \leq 4$		3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
We,1 $n_B \leq 6$		2.29 6	2.01 6	1.78 6	1.61 6	1.46 6	1.34 6	1.03 5	0.95 5	0.89 5	0.83 5	0.63 4	0.59 4	0.56 4	0.53 4	0.51 4	0.48 4	0.46 4	0.44 4	0.32 3	0.31 3	0.30 3	0.29 3	0.28 3
We,10	Colour group III	2.29	2.01	1.54	1.34	0.97	0.89	0.80	0.52	0.44	0.37	0.25												
$n_A \leq 4$		3	3	3	3	3	2	2	2	2	3	3												
We,1 $n_B \leq 6$		2.29 6	2.01 6	1.78 6	1.34 5	1.22 5	0.89 4	0.82 4	0.76 4	0.44 3	0.45 3	0.45 3												

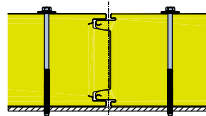
Three-span element, allowable wind suction load allow. w _s [kN/m ²]																								
Span L[m]		2.00	2.25	2.50	2.75	3.00	3.25	3.50	3.75	4.00	4.25	4.50	4.75	5.00	5.25	5.50	5.75	6.00	6.25	6.50	6.75	7.00	7.25	7.50
We,10	Colour group I	2.39	2.11	1.89	1.72	1.57	1.45	1.34	1.25	1.17	1.09	0.95	0.83	0.78	0.74	0.71	0.68	0.65	0.61	0.56	0.52	0.47	0.44	0.41
n _A ≤ 4		4	4	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
We,1 n _B ≤ 6		2.39 6	2.11 6	1.89 6	1.72 6	1.57 6	1.45 6	1.34 6	1.25 6	1.17 6	1.10 6	1.04 6	0.98 6	0.93 6	0.74 5	0.71 5	0.68 5	0.65 5	0.62 5	0.60 5	0.57 5	0.55 5	0.53 5	0.52 5
We,10	Colour group II	2.39	2.11	1.89	1.72	1.57	1.24	1.12	1.04	0.98	0.92	0.79	0.69	0.62	0.59	0.56	0.54	0.52	0.50	0.48	0.44	0.40	0.37	0.35
n _A ≤ 4		4	4	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
We,1 n _B ≤ 6		2.39 6	2.11 6	1.89 6	1.72 6	1.57 6	1.45 6	1.12 5	1.04 5	0.98 5	0.92 5	0.87 5	0.82 5	0.78 5	0.74 5	0.57 4	0.54 4	0.52 4	0.50 4	0.48 4	0.46 4	0.44 4	0.43 4	0.41 4
We,10	Colour group III	2.39	1.76	1.58	1.26	1.05	0.96	0.89	0.74	0.59	0.55	0.52	0.47	0.40	0.35	0.30	0.27	0.23	0.21	0.19				
n _A ≤ 4		4	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3				
We,1 n _B ≤ 6		2.39 6	2.10 6	1.58 5	1.43 5	1.05 4	0.96 4	0.89 4	0.83 4	0.78 4	0.73 4	0.52 3	0.49 3	0.47 3	0.44 3	0.42 3	0.41 3	0.39 3	0.37 3	0.36 3				

Four-span element, allowable wind suction load allow. w_s [kN/m ²]																								
Span L[m]		2.00	2.25	2.50	2.75	3.00	3.25	3.50	3.75	4.00	4.25	4.50	4.75	5.00	5.25	5.50	5.75	6.00	6.25	6.50	6.75	7.00	7.25	7.50
We,10	Colour group I	2.41	2.13	1.90	1.72	1.57	1.44	1.34	1.24	1.16	1.07	0.92	0.81	0.77	0.73	0.69	0.66	0.63	0.57	0.52	0.48	0.44	0.42	0.40
$n_A \leq 4$		4	4	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
We,1 $n_B \leq 6$		2.41 6	2.13 6	1.90 6	1.72 6	1.57 6	1.44 6	1.34 6	1.24 6	1.16 6	1.09 6	1.03 6	0.97 6	0.77 5	0.73 5	0.69 5	0.66 5	0.63 5	0.61 5	0.58 5	0.56 5	0.54 5	0.52 5	0.40 4
We,10	Colour group II	2.40	2.13	1.90	1.72	1.48	1.24	1.11	1.04	0.97	0.90	0.77	0.66	0.61	0.58	0.56	0.53	0.51	0.48	0.44	0.40	0.36	0.33	0.31
$n_A \leq 4$		4	4	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
We,1 $n_B \leq 6$		2.41 6	2.13 6	1.90 6	1.72 6	1.57 6	1.44 6	1.11 5	1.04 5	0.97 5	0.91 5	0.86 5	0.81 5	0.77 5	0.58 4	0.56 4	0.53 4	0.51 4	0.49 4	0.47 4	0.45 4	0.43 4	0.42 4	0.40 4
We,10	Colour group III	2.00	1.56	1.27	1.15	1.05	0.96	0.89	0.73	0.58	0.54	0.51	0.43	0.36	0.30	0.26	0.22	0.19						
$n_A \leq 4$		3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3						
We,1 $n_B \leq 6$		2.00 5	1.77 5	1.59 5	1.15 4	1.05 4	0.96 4	0.89 4	0.83 4	0.77 4	0.73 4	0.51 3	0.49 3	0.46 3	0.44 3	0.42 3	0.40 3	0.38 3						

Load tables for preliminary design of buildings with normal internal temperatures (not valid for cold stores or chillrooms)



Type of fixing



End support:

screws with washer $d \geq 16$ mm
characteristic tensile force "pull through the sheet" $F_{z,k}(b_A) = 2.0$ kN/screw

Intermediate support:

screws with washer $d \geq 16$ mm
characteristic tensile force "pull through the sheet" $F_{z,k}(b_B) = 2.0$ kN/screw

The verification "pull out of the substructure" must be calculated separately!

Line b_A : Minimum end support width b_A in [mm] for the relevant wind-pressure load.

Line b_B : Minimum intermediate support width b_B in [mm] for the relevant wind-pressure load.

Line n_A : Number of screws per module width at the end support b_A for the relevant wind-suction load.

Line n_B : Number of screws per module width at the intermediate support b_B for the relevant wind-suction load.

Line $W_{e,10}$: Allowable wind pressure/suction load in [kN/m²] in consideration of the panel design with a deflection restriction $\max f \leq L/100$.

Line $W_{e,1}$: Allowable wind suction load in [kN/m²] in consideration of the fastener design.

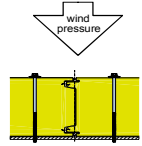
Colour group I, II, III: The following temperature differences between the cover sheets have been taken into consideration for secondary loads in the cover sheets, in accordance with the general approval issued by the building inspection authorities:

Season	Colour Group	t_{indoor}	$t_{\text{outdoor}} - t_{\text{indoor}}$
summer	I / II / III	25°C	+30 / +40 / +55 °C
winter	all	20°C	-40 °C

The tables do not replace the structural analysis required for execution of the constructional work. The allowable wind loads are specified in [kN/m²] and have been determined in accordance with the provisions of official approval no. Z-10.4-428 issued by the German building inspection authorities. The load tables contain both load and material safety factors.

Please note the maximum length supplied, especially in the case of multi-span elements.

Load tables for wind pressure

**Single-span element, allowable wind pressure load allow. w_p [kN/m²]**

Span L [m]	2.00	2.25	2.50	2.75	3.00	3.25	3.50	3.75	4.00	4.25	4.50	4.75	5.00	5.25	5.50	5.75	6.00	6.25	6.50	6.75	7.00	7.25	7.50
$b_A = 40$ [mm]	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40
$W_{e,10}$	2.36	2.09	1.89	1.71	1.57	1.45	1.35	1.26	1.18	1.11	1.05	0.99	0.94	0.90	0.86	0.82	0.79	0.75	0.72	0.67	0.63	0.58	0.54
$b_A \leq 60$ [mm]	60	60	60	60	60	60	60	60	60	60	58	55	52	49	47	45	43	42	40	40	40	40	40
$W_{e,10}$	3.54	3.14	2.83	2.57	2.36	2.18	2.02	1.89	1.77	1.67	1.51	1.36	1.22	1.11	1.01	0.93	0.85	0.78	0.72	0.67	0.63	0.58	0.54
$b_A \leq 80$ [mm]	80	80	80	80	80	80	74	69	65	61	58	55	52	49	47	45	43	42	40	40	40	40	40
$W_{e,10}$	4.72	4.19	3.77	3.43	3.14	2.90	2.50	2.18	1.91	1.69	1.51	1.36	1.22	1.11	1.01	0.93	0.85	0.78	0.72	0.67	0.63	0.58	0.54

Two-span element, allowable wind pressure load allow. w_p [kN/m²]

Span L [m]	2.00	2.25	2.50	2.75	3.00	3.25	3.50	3.75	4.00	4.25	4.50	4.75	5.00	5.25	5.50	5.75	6.00	6.25	6.50	6.75	7.00	7.25	7.50
$b_A = 40$ [mm]	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40
$W_{e,10}$	1.59	1.38	1.23	1.11	1.01	0.94	0.87	0.82	0.77	0.73	0.70	0.66	0.63	0.61	0.59	0.56	0.54	0.53	0.51	0.49	0.48	0.46	0.44
$b_B = 60$ [mm]	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60
$b_A \leq 60$ [mm]	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40
$W_{e,10}$	2.36	2.07	1.84	1.66	1.51	1.39	1.29	1.21	1.13	1.07	1.01	0.96	0.92	0.88	0.84	0.81	0.77	0.70	0.63	0.57	0.52	0.48	0.44
$b_B \leq 80$ [mm]	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	75	71	68	64	61	60
$b_A \leq 80$ [mm]	62	63	63	63	62	63	62	63	63	61	58	55	52	49	45	42	40	40	40	40	40	40	40
$W_{e,10}$	3.68	3.28	2.95	2.68	2.45	2.27	2.10	1.97	1.84	1.70	1.51	1.36	1.23	1.10	0.97	0.86	0.77	0.70	0.63	0.57	0.52	0.48	0.44
$b_B \leq 125$ [mm]	125	125	125	125	125	125	125	125	125	122	115	109	104	98	91	84	80	75	71	68	64	61	60

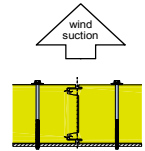
Three-span element, allowable wind pressure load allow. w_p [kN/m²]

Span L [m]	2.00	2.25	2.50	2.75	3.00	3.25	3.50	3.75	4.00	4.25	4.50	4.75	5.00	5.25	5.50	5.75	6.00	6.25	6.50	6.75	7.00	7.25	7.50
$b_A = 40$ [mm]	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40
$W_{e,10}$	1.77	1.57	1.41	1.29	1.18	1.09	1.01	0.94	0.88	0.83	0.79	0.74	0.71	0.67	0.64	0.62	0.59	0.57	0.54	0.52	0.51	0.49	0.47
$b_B = 60$ [mm]	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60
$b_A \leq 60$ [mm]	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40
$W_{e,10}$	2.36	2.10	1.89	1.71	1.57	1.45	1.35	1.26	1.18	1.11	1.05	0.99	0.94	0.90	0.86	0.82	0.79	0.75	0.72	0.67	0.63	0.58	0.54
$b_B \leq 80$ [mm]	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	77	74	72	69
$b_A \leq 80$ [mm]	63	62	62	62	62	62	62	63	63	61	58	55	52	49	47	45	43	42	40	40	40	40	40
$W_{e,10}$	3.69	3.27	2.95	2.68	2.45	2.27	2.11	1.97	1.84	1.69	1.51	1.36	1.22	1.11	1.01	0.93	0.85	0.78	0.72	0.67	0.63	0.58	0.54
$b_B \leq 125$ [mm]	125	125	125	125	125	125	125	125	125	122	115	109	104	99	94	90	86	83	80	77	74	72	69

Four-span element, allowable wind pressure load allow. w_p [kN/m²]

Span L [m]	2.00	2.25	2.50	2.75	3.00	3.25	3.50	3.75	4.00	4.25	4.50	4.75	5.00	5.25	5.50	5.75	6.00	6.25	6.50	6.75	7.00	7.25	7.50
$b_A = 40$ [mm]	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40
$W_{e,10}$	1.77	1.57	1.41	1.29	1.18	1.09	1.01	0.94	0.88	0.83	0.79	0.74	0.71	0.67	0.64	0.62	0.59	0.57	0.54	0.52	0.51	0.49	0.47
$b_B = 60$ [mm]	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60
$b_A \leq 60$ [mm]	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40
$W_{e,10}$	2.36	2.09	1.89	1.71	1.57	1.45	1.35	1.26	1.18	1.11	1.05	0.99	0.94	0.90	0.86	0.82	0.79	0.75	0.72	0.67	0.63	0.58	0.54
$b_B \leq 80$ [mm]	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	77	74	72	69
$b_A \leq 80$ [mm]	62	63	62	63	62	63	62	63	63	61	58	55	52	49	47	45	43	42	40	40	40	40	40
$W_{e,10}$	3.68	3.28	2.95	2.68	2.45	2.27	2.11	1.97	1.84	1.70	1.51	1.36	1.22	1.11	1.01	0.93	0.85	0.78	0.72	0.67	0.63	0.58	0.54
$b_B \leq 125$ [mm]	125	125	125	125	125	125	125	125	125	122	115	109	104	99	94	90	86	83	80	77	74	72	69

Load tables for wind suction



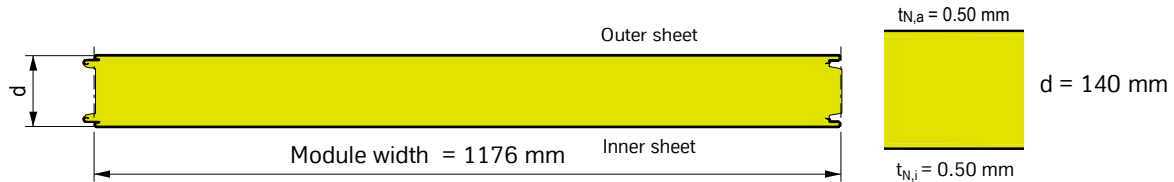
Single-span element, allowable wind suction load										allow. w_s [kN/m ²]														
Span L[m]		2.00	2.25	2.50	2.75	3.00	3.25	3.50	3.75	4.00	4.25	4.50	4.75	5.00	5.25	5.50	5.75	6.00	6.25	6.50	6.75	7.00	7.25	7.50
We,10 $n_A = 3$ We,1 $n_A = 6$ We,1	Colour group -III	5.10	4.54	4.08	3.71	3.40	2.90	2.50	2.18	1.91	1.69	1.51	1.36	1.22	1.11	1.01	0.93	0.85	0.78	0.72	0.67	0.63	0.58	0.54
		3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
		2.55	2.27	2.04	1.86	1.70	1.57	1.46	1.36	1.28	1.20	1.13	1.07	1.02	0.97	0.93	0.89	0.85	0.82	0.78	0.76	0.73	0.70	0.68
		6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6
		5.10	4.54	4.08	3.71	3.40	3.14	2.92	2.72	2.55	2.40	2.27	2.15	2.04	1.94	1.86	1.77	1.70	1.63	1.57	1.51	1.46	1.41	1.36

Two-span element, allowable wind suction load allow. w_s [kN/m ²]																								
Span L[m]		2.00	2.25	2.50	2.75	3.00	3.25	3.50	3.75	4.00	4.25	4.50	4.75	5.00	5.25	5.50	5.75	6.00	6.25	6.50	6.75	7.00	7.25	7.50
We,10	Colour group I	2.32	2.04	1.81	1.63	1.48	1.35	1.25	1.16	1.08	1.01	0.95	0.90	0.80	0.69	0.64	0.61	0.58	0.56	0.54	0.49	0.44	0.40	0.37
$n_A \leq 4$		4	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	
We,1		2.32	2.04	1.81	1.63	1.48	1.35	1.25	1.16	1.08	1.01	0.95	0.90	0.85	0.81	0.77	0.61	0.58	0.56	0.54	0.52	0.50	0.47	0.46
$n_B \leq 6$		6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	5	5	5	5	5	5	5	5
We,10	Colour group II	2.32	2.04	1.81	1.63	1.48	1.35	1.25	1.16	0.91	0.84	0.79	0.75	0.64	0.54	0.51	0.49	0.47	0.45	0.42	0.38	0.34	0.30	0.28
$n_A \leq 4$		4	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	
We,1		2.32	2.04	1.81	1.63	1.48	1.35	1.25	1.16	1.08	0.84	0.79	0.75	0.71	0.67	0.64	0.49	0.47	0.45	0.43	0.41	0.40	0.38	0.37
$n_B \leq 6$		6	6	6	6	6	6	6	6	6	5	5	5	5	5	5	4	4	4	4	4	4	4	4
We,10	Colour group III	2.32	2.04	1.81	1.63	1.23	1.13	0.97	0.77	0.72	0.65	0.46	0.35	0.35	0.29	0.22	0.17							
$n_A \leq 4$		4	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3							
We,1		2.32	2.04	1.81	1.63	1.48	1.13	1.04	0.77	0.72	0.67	0.63	0.60	0.35	0.36	0.36	0.36							
$n_B \leq 6$		6	6	6	6	6	5	5	4	4	4	4	4	3	3	3	3							

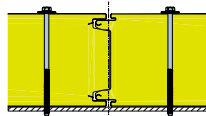
Three-span element, allowable wind suction load allow. w_s [kN/m ²]																								
Span L[m]		2.00	2.25	2.50	2.75	3.00	3.25	3.50	3.75	4.00	4.25	4.50	4.75	5.00	5.25	5.50	5.75	6.00	6.25	6.50	6.75	7.00	7.25	7.50
We,10	Colour group I	2.40	2.12	1.90	1.72	1.58	1.45	1.35	1.25	1.17	1.10	1.04	0.98	0.94	0.89	0.80	0.72	0.65	0.62	0.60	0.58	0.55	0.54	0.52
$n_A \leq 4$		4	4	4	4	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
We,1 $n_B \leq 6$		2.40 6	2.12 6	1.90 6	1.72 6	1.58 6	1.45 6	1.35 6	1.25 6	1.17 6	1.10 6	1.04 6	0.99 6	0.94 6	0.89 6	0.85 6	0.81 6	0.78 6	0.75 6	0.60 5	0.58 5	0.55 5	0.54 5	0.52 5
We,10	Colour group II	2.40	2.12	1.90	1.72	1.58	1.45	1.35	1.25	1.02	0.92	0.87	0.82	0.78	0.74	0.69	0.61	0.55	0.50	0.48	0.46	0.44	0.43	0.41
$n_A \leq 4$		4	4	4	4	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
We,1 $n_B \leq 6$		2.40 6	2.12 6	1.90 6	1.72 6	1.58 6	1.45 6	1.35 6	1.25 6	1.17 6	1.10 6	0.87 5	0.82 5	0.78 5	0.74 5	0.71 5	0.68 5	0.65 5	0.62 5	0.60 5	0.46 4	0.44 4	0.43 4	0.41 4
We,10	Colour group III	2.40	2.12	1.90	1.44	1.31	1.21	0.90	0.84	0.78	0.74	0.69	0.59	0.50	0.44	0.42	0.41	0.39	0.35	0.32	0.29	0.26	0.23	0.21
$n_A \leq 4$		4	4	4	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
We,1 $n_B \leq 6$		2.40 6	2.12 6	1.90 6	1.44 5	1.31 5	1.21 5	1.12 5	0.84 4	0.78 4	0.74 4	0.69 4	0.66 4	0.62 4	0.59 4	0.57 4	0.41 3	0.39 3	0.37 3	0.36 3	0.35 3	0.33 3	0.32 3	0.31 3

Four-span element, allowable wind suction load allow. w_s [kN/m ²]																									
Span L[m]		2.00	2.25	2.50	2.75	3.00	3.25	3.50	3.75	4.00	4.25	4.50	4.75	5.00	5.25	5.50	5.75	6.00	6.25	6.50	6.75	7.00	7.25	7.50	
We,10	Colour group I	2.42	2.14	1.92	1.73	1.58	1.45	1.34	1.25	1.17	1.10	1.03	0.98	0.93	0.88	0.78	0.70	0.64	0.61	0.59	0.56	0.54	0.52	0.51	
$n_A \leq 4$		4	4	4	4	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	
We,1 $n_B \leq 6$		2.42	2.14	1.92	1.73	1.58	1.45	1.35	1.25	1.17	1.10	1.03	0.98	0.93	0.88	0.84	0.80	0.76	0.61	0.59	0.56	0.54	0.52	0.51	
We,10	Colour group II	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	5	5	5	5	5	5	5
$n_A \leq 4$		2.42	2.14	1.92	1.73	1.58	1.45	1.35	1.25	1.02	0.91	0.86	0.81	0.77	0.73	0.66	0.58	0.52	0.49	0.47	0.45	0.43	0.42	0.40	
We,1 $n_B \leq 6$		4	4	4	4	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
We,10	Colour group III	2.42	2.14	1.92	1.73	1.58	1.45	1.35	1.25	1.17	1.10	0.86	0.81	0.77	0.73	0.70	0.67	0.64	0.61	0.47	0.45	0.43	0.42	0.40	
$n_A \leq 4$		6	6	6	6	6	6	6	6	6	6	5	5	5	5	5	5	5	5	4	4	4	4	4	
We,1 $n_B \leq 6$		2.02	1.78	1.60	1.44	1.13	0.97	0.90	0.83	0.78	0.73	0.69	0.56	0.47	0.44	0.42	0.40	0.35	0.31	0.27	0.24	0.21	0.19		
$n_A \leq 4$	Colour group III	4	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3		
We,1		2.42	1.78	1.60	1.44	1.32	1.21	1.12	0.83	0.78	0.73	0.69	0.65	0.62	0.59	0.42	0.40	0.38	0.37	0.35	0.34	0.33	0.31		
$n_B \leq 6$		6	5	5	5	5	5	5	4	4	4	4	4	4	4	3	3	3	3	3	3	3	3		

Load tables for preliminary design of buildings with normal internal temperatures (not valid for cold stores or chillrooms)



Type of fixing



End support:

screws with washer $d \geq 16$ mm
characteristic tensile force "pull through the sheet" $F_{z,k}(b_A) = 2.0$ kN/screw

Intermediate support:

screws with washer $d \geq 16$ mm
characteristic tensile force "pull through the sheet" $F_{z,k}(b_B) = 2.0$ kN/screw

The verification "pull out of the substructure" must be calculated separately!

Line b_A : Minimum end support width b_A in [mm] for the relevant wind-pressure load.

Line b_B : Minimum intermediate support width b_B in [mm] for the relevant wind-pressure load.

Line n_A : Number of screws per module width at the end support b_A for the relevant wind-suction load.

Line n_B : Number of screws per module width at the intermediate support b_B for the relevant wind-suction load.

Line $W_{e,10}$: Allowable wind pressure/suction load in [kN/m²] in consideration of the panel design with a deflection restriction $\max f \leq L/100$.

Line $W_{e,1}$: Allowable wind suction load in [kN/m²] in consideration of the fastener design.

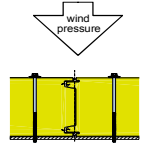
Colour group I, II, III: The following temperature differences between the cover sheets have been taken into consideration for secondary loads in the cover sheets, in accordance with the general approval issued by the building inspection authorities:

Season	Colour Group	t_{indoor}	$t_{\text{outdoor}} - t_{\text{indoor}}$
summer	I / II / III	25°C	+30 / +40 / +55 °C
winter	all	20°C	-40 °C

The tables do not replace the structural analysis required for execution of the constructional work. The allowable wind loads are specified in [kN/m²] and have been determined in accordance with the provisions of official approval no. Z-10.4-428 issued by the German building inspection authorities. The load tables contain both load and material safety factors.

Please note the maximum length supplied, especially in the case of multi-span elements.

Load tables for wind pressure



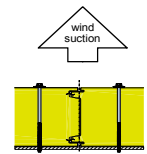
Single-span element, allowable wind pressure load											allow. w_p [kN/m ²]												
Span L[m]	3.50	3.75	4.00	4.25	4.50	4.75	5.00	5.25	5.50	5.75	6.00	6.25	6.50	6.75	7.00	7.25	7.50	7.75	8.00	8.25	8.50	8.75	9.00
$b_A = 40$ [mm]	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40
$W_{e,10}$	1.35	1.26	1.18	1.11	1.05	0.99	0.94	0.90	0.86	0.82	0.79	0.75	0.73	0.70	0.67	0.65	0.63	0.61	0.57	0.54	0.51	0.48	0.45
$b_A \leq 60$ [mm]	60	60	60	60	60	60	60	59	57	54	52	50	48	46	45	43	42	40	40	40	40	40	40
$W_{e,10}$	2.02	1.89	1.77	1.67	1.57	1.49	1.41	1.33	1.22	1.11	1.02	0.94	0.87	0.81	0.75	0.70	0.65	0.61	0.57	0.54	0.51	0.48	0.45
$b_A \leq 80$ [mm]	80	80	78	73	69	66	62	59	57	54	52	50	48	46	45	43	42	40	40	40	40	40	40
$W_{e,10}$	2.70	2.51	2.30	2.04	1.82	1.63	1.47	1.33	1.22	1.11	1.02	0.94	0.87	0.81	0.75	0.70	0.65	0.61	0.57	0.54	0.51	0.48	0.45

Two-span element, allowable wind pressure load											allow. w_p [kN/m ²]													
Span L[m]	3.50	3.75	4.00	4.25	4.50	4.75	5.00	5.25	5.50	5.75	6.00	6.25	6.50	6.75	7.00	7.25	7.50	7.75	8.00	8.25	8.50	8.75	9.00	
$b_A = 40$ [mm]	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	
$W_{e,10}$	0.85	0.80	0.75	0.71	0.68	0.64	0.62	0.59	0.57	0.55	0.53	0.51	0.49	0.48	0.46	0.45	0.44	0.43	0.42	0.41	0.39	0.39	0.37	
$b_B = 60$ [mm]	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	
$b_A \leq 60$ [mm]	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	
$W_{e,10}$	1.28	1.19	1.12	1.05	1.00	0.95	0.90	0.86	0.83	0.79	0.76	0.74	0.71	0.69	0.67	0.63	0.58	0.53	0.49	0.46	0.43	0.40	0.37	
$b_B \leq 80$ [mm]	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	78	75	72	69	66	64	61	60	
$b_A \leq 80$ [mm]	63	63	63	62	63	63	62	59	57	54	52	49	46	43	41	40	40	40	40	40	40	40	40	
$W_{e,10}$	2.11	1.97	1.84	1.73	1.64	1.55	1.47	1.33	1.22	1.11	1.02	0.93	0.83	0.76	0.69	0.63	0.58	0.53	0.49	0.46	0.43	0.40	0.37	
$b_B \leq 125$ [mm]	125	125	125	125	125	125	125	119	113	108	104	98	92	87	82	78	75	72	69	66	64	61	60	

Three-span element, allowable wind pressure load allow. w_p [kN/m ²]																							
Span L[m]	3.50	3.75	4.00	4.25	4.50	4.75	5.00	5.25	5.50	5.75	6.00	6.25	6.50	6.75	7.00	7.25	7.50	7.75	8.00	8.25	8.50	8.75	9.00
$b_A = 40$ [mm]	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40
$W_{e,10}$	1.01	0.94	0.88	0.83	0.79	0.74	0.71	0.67	0.64	0.62	0.59	0.57	0.54	0.52	0.51	0.49	0.47	0.46	0.44	0.43	0.42	0.40	0.39
$b_B = 60$ [mm]	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60
$b_A \leq 60$ [mm]	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40
$W_{e,10}$	1.35	1.26	1.18	1.11	1.05	0.99	0.94	0.90	0.86	0.82	0.79	0.75	0.73	0.70	0.67	0.65	0.63	0.61	0.57	0.54	0.51	0.48	0.45
$b_B \leq 80$ [mm]	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	78	76	73	71	69
$b_A \leq 80$ [mm]	63	63	62	62	62	63	62	59	57	54	52	50	48	46	45	43	42	40	40	40	40	40	40
$W_{e,10}$	2.11	1.97	1.84	1.73	1.64	1.55	1.47	1.33	1.22	1.11	1.02	0.94	0.87	0.81	0.75	0.70	0.65	0.61	0.57	0.54	0.51	0.48	0.45
$b_B \leq 125$ [mm]	125	125	125	125	125	125	125	119	113	108	104	100	96	92	89	86	83	80	78	76	73	71	69

Four-span element, allowable wind pressure load											allow. w_p [kN/m ²]													
Span L[m]	3.50	3.75	4.00	4.25	4.50	4.75	5.00	5.25	5.50	5.75	6.00	6.25	6.50	6.75	7.00	7.25	7.50	7.75	8.00	8.25	8.50	8.75	9.00	
$b_A = 40$ [mm]	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	
$W_{e,10}$	1.01	0.94	0.88	0.83	0.79	0.74	0.71	0.67	0.64	0.62	0.59	0.57	0.54	0.52	0.51	0.49	0.47	0.46	0.44	0.43	0.42	0.40	0.39	
$b_B = 60$ [mm]	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	
$b_A \leq 60$ [mm]	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	
$W_{e,10}$	1.35	1.26	1.18	1.11	1.05	0.99	0.94	0.90	0.86	0.82	0.79	0.75	0.73	0.70	0.67	0.65	0.63	0.61	0.57	0.54	0.51	0.48	0.45	
$b_B \leq 80$ [mm]	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	78	76	73	71	69	
$b_A \leq 80$ [mm]	62	62	62	62	63	62	62	59	57	54	52	50	48	46	45	43	42	40	40	40	40	40	40	
$W_{e,10}$	2.10	1.96	1.84	1.73	1.64	1.55	1.47	1.33	1.22	1.11	1.02	0.94	0.87	0.81	0.75	0.70	0.65	0.61	0.57	0.54	0.51	0.48	0.45	
$b_B \leq 125$ [mm]	125	125	125	125	125	125	125	119	113	108	104	100	96	92	89	86	83	80	78	76	73	71	69	

Load tables for wind suction



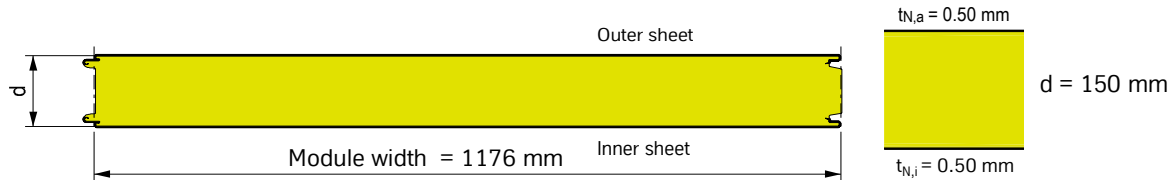
Single-span element, allowable wind suction load											allow. w_s [kN/m ²]																	
Span L[m]		3.50	3.75	4.00	4.25	4.50	4.75	5.00	5.25	5.50	5.75	6.00	6.25	6.50	6.75	7.00	7.25	7.50	7.75	8.00	8.25	8.50	8.75	9.00				
We,10	Colour group I-III	2.92	2.62	2.30	2.04	1.82	1.63	1.47	1.33	1.22	1.11	1.02	0.94	0.87	0.81	0.75	0.70	0.65	0.61	0.57	0.54	0.51	0.48	0.45				
		3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3				
We,1		1.46	1.36	1.28	1.20	1.13	1.07	1.02	0.97	0.93	0.89	0.85	0.82	0.78	0.76	0.73	0.70	0.68	0.66	0.64	0.62	0.60	0.58	0.57				
6		6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6				
We,1		2.92	2.72	2.55	2.40	2.27	2.15	2.04	1.94	1.86	1.77	1.70	1.63	1.57	1.51	1.46	1.41	1.36	1.32	1.28	1.24	1.20	1.17	1.13				

Two-span element, allowable wind suction load allow. w_s [kN/m ²]																								
Span L[m]		3.50	3.75	4.00	4.25	4.50	4.75	5.00	5.25	5.50	5.75	6.00	6.25	6.50	6.75	7.00	7.25	7.50	7.75	8.00	8.25	8.50	8.75	9.00
We,10	Colour group I $n_A \leq 4$ We,1 $n_B \leq 6$	1.26	1.17	1.09	1.02	0.96	0.91	0.86	0.81	0.77	0.74	0.66	0.58	0.54	0.52	0.50	0.48	0.46	0.45	0.42	0.39	0.36	0.33	0.31
3		3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	
1.26		1.17	1.09	1.02	0.96	0.91	0.86	0.81	0.77	0.74	0.70	0.67	0.65	0.52	0.50	0.48	0.46	0.45	0.43	0.42	0.41	0.40	0.38	
6		6	6	6	6	6	6	6	6	6	6	6	6	6	5	5	5	5	5	5	5	5	5	5
We,10	Colour group II $n_A \leq 4$ We,1 $n_B \leq 6$	1.26	1.17	1.09	1.02	0.95	0.75	0.71	0.68	0.64	0.61	0.53	0.46	0.43	0.42	0.40	0.39	0.37	0.36	0.33	0.30	0.28	0.26	0.24
3		3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	
1.26		1.17	1.09	1.02	0.96	0.90	0.71	0.68	0.64	0.61	0.59	0.56	0.54	0.42	0.40	0.39	0.37	0.36	0.35	0.34	0.33	0.32	0.31	
6		6	6	6	6	6	5	5	5	5	5	5	5	5	4	4	4	4	4	4	4	4	4	4
We,10	Colour group III $n_A \leq 4$ We,1 $n_B \leq 6$	1.05	0.98	0.91	0.68	0.64	0.60	0.57	0.44	0.33	0.29	0.29	0.26	0.21	0.17									
3		3	3	3	3	3	3	3	3	3	3	3	3	3	3									
1.26		0.98	0.91	0.85	0.64	0.60	0.57	0.54	0.52	0.49	0.29	0.30	0.30	0.30										
6		5	5	5	4	4	4	4	4	4	3	3	3	3										

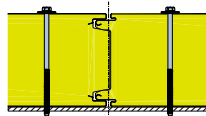
Three-span element, allowable wind suction load							allow. w_s [kN/m ²]																		
Span L[m]		3.50	3.75	4.00	4.25	4.50	4.75	5.00	5.25	5.50	5.75	6.00	6.25	6.50	6.75	7.00	7.25	7.50	7.75	8.00	8.25	8.50	8.75	9.00	
We,10	Colour group I	1.35	1.26	1.18	1.11	1.04	0.99	0.94	0.89	0.85	0.81	0.78	0.75	0.71	0.65	0.59	0.55	0.52	0.50	0.48	0.47	0.46	0.44	0.43	
$n_A \leq 4$		3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	
We,1		1.35	1.26	1.18	1.11	1.04	0.99	0.94	0.89	0.85	0.81	0.78	0.75	0.72	0.69	0.67	0.64	0.62	0.60	0.49	0.47	0.46	0.44	0.43	
$n_B \leq 6$		6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	5	5	5	5	5	
We,10	Colour group II	1.35	1.26	1.18	1.11	1.04	0.90	0.78	0.74	0.71	0.68	0.65	0.62	0.60	0.56	0.51	0.47	0.43	0.40	0.39	0.38	0.36	0.35	0.34	
$n_A \leq 4$		3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	
We,1		1.35	1.26	1.18	1.11	1.04	0.99	0.94	0.89	0.71	0.68	0.65	0.62	0.60	0.58	0.55	0.54	0.52	0.50	0.49	0.47	0.36	0.35	0.34	
$n_B \leq 6$		6	6	6	6	6	6	6	6	5	5	5	5	5	5	5	5	5	5	5	5	4	4	4	
We,10	Colour group III	1.12	1.05	0.91	0.74	0.70	0.66	0.62	0.59	0.57	0.51	0.45	0.39	0.36	0.35	0.33	0.32	0.31	0.29	0.27	0.25	0.23	0.21	0.20	
$n_A \leq 4$		3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	
We,1		1.12	1.05	0.98	0.92	0.70	0.66	0.62	0.59	0.57	0.54	0.52	0.50	0.48	0.46	0.44	0.32	0.31	0.30	0.29	0.28	0.27	0.27	0.26	
$n_B \leq 6$		5	5	5	5	4	4	4	4	4	4	4	4	4	4	4	3	3	3	3	3	3	3	3	

Four-span element, allowable wind suction load											allow. w_s [kN/m ²]													
Span L[m]		3.50	3.75	4.00	4.25	4.50	4.75	5.00	5.25	5.50	5.75	6.00	6.25	6.50	6.75	7.00	7.25	7.50	7.75	8.00	8.25	8.50	8.75	9.00
We,10	Colour group I	1.35	1.26	1.18	1.10	1.04	0.98	0.93	0.88	0.84	0.80	0.77	0.74	0.68	0.62	0.57	0.53	0.51	0.49	0.48	0.46	0.45	0.43	0.42
$n_A \leq 4$		3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
We,1		1.35	1.26	1.18	1.10	1.04	0.98	0.93	0.88	0.84	0.80	0.77	0.74	0.71	0.68	0.65	0.63	0.61	0.49	0.48	0.46	0.45	0.43	0.42
$n_B \leq 6$		6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	5	5	5	5	5	5
We,10	Colour group II	1.35	1.26	1.18	1.10	1.04	0.89	0.78	0.74	0.70	0.67	0.64	0.61	0.59	0.53	0.48	0.44	0.41	0.39	0.38	0.37	0.36	0.35	0.34
$n_A \leq 4$		3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
We,1		1.35	1.26	1.18	1.10	1.04	0.98	0.93	0.74	0.70	0.67	0.64	0.61	0.59	0.57	0.55	0.53	0.51	0.49	0.38	0.37	0.36	0.35	0.34
$n_B \leq 6$		6	6	6	6	6	6	6	5	5	5	5	5	5	5	5	5	5	5	4	4	4	4	4
We,10	Colour group III	1.13	0.97	0.84	0.74	0.69	0.65	0.62	0.59	0.56	0.48	0.41	0.37	0.35	0.34	0.33	0.31	0.28	0.25	0.23	0.21	0.19	0.18	0.16
$n_A \leq 4$		3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
We,1		1.13	1.05	0.98	0.92	0.69	0.65	0.62	0.59	0.56	0.54	0.51	0.49	0.47	0.34	0.33	0.32	0.30	0.29	0.29	0.28	0.27	0.26	0.25
$n_B \leq 6$		5	5	5	5	4	4	4	4	4	4	4	4	4	3	3	3	3	3	3	3	3	3	3

Load tables for preliminary design of buildings with normal internal temperatures (not valid for cold stores or chillrooms)



Type of fixing



End support:

screws with washer $d \geq 16$ mm
characteristic tensile force "pull through the sheet" $F_{z,k}(b_A) = 2.0$ kN/screw

Intermediate support:

screws with washer $d \geq 16$ mm
characteristic tensile force "pull through the sheet" $F_{z,k}(b_B) = 2.0$ kN/screw

The verification "pull out of the substructure" must be calculated separately!

Line b_A : Minimum end support width b_A in [mm] for the relevant wind-pressure load.

Line b_B : Minimum intermediate support width b_B in [mm] for the relevant wind-pressure load.

Line n_A : Number of screws per module width at the end support b_A for the relevant wind-suction load.

Line n_B : Number of screws per module width at the intermediate support b_B for the relevant wind-suction load.

Line $W_{e,10}$: Allowable wind pressure/suction load in [kN/m²] in consideration of the panel design with a deflection restriction $\max f \leq L/100$.

Line $W_{e,1}$: Allowable wind suction load in [kN/m²] in consideration of the fastener design.

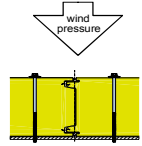
Colour group I, II, III: The following temperature differences between the cover sheets have been taken into consideration for secondary loads in the cover sheets, in accordance with the general approval issued by the building inspection authorities:

Season	Colour Group	t_{indoor}	$t_{\text{outdoor}} - t_{\text{indoor}}$
summer	I / II / III	25°C	+30 / +40 / +55 °C
winter	all	20°C	-40 °C

The tables do not replace the structural analysis required for execution of the constructional work. The allowable wind loads are specified in [kN/m²] and have been determined in accordance with the provisions of official approval no. Z-10.4-428 issued by the German building inspection authorities. The load tables contain both load and material safety factors.

Please note the maximum length supplied, especially in the case of multi-span elements.

Load tables for wind pressure



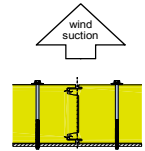
Single-span element, allowable wind pressure load allow. w_p [kN/m ²]																							
Span L[m]	3.50	3.75	4.00	4.25	4.50	4.75	5.00	5.25	5.50	5.75	6.00	6.25	6.50	6.75	7.00	7.25	7.50	7.75	8.00	8.25	8.50	8.75	9.00
$b_A = 40$ [mm]	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40
$W_{e,10}$	1.35	1.26	1.18	1.11	1.05	0.99	0.94	0.90	0.86	0.82	0.79	0.75	0.73	0.70	0.67	0.65	0.63	0.61	0.59	0.57	0.55	0.52	0.49
$b_A \leq 60$ [mm]	60	60	60	60	60	60	60	60	60	59	56	54	52	50	48	47	45	44	42	41	40	40	40
$W_{e,10}$	2.02	1.89	1.77	1.67	1.57	1.49	1.41	1.35	1.29	1.21	1.11	1.02	0.95	0.88	0.82	0.76	0.71	0.67	0.63	0.59	0.55	0.52	0.49
$b_A \leq 80$ [mm]	80	80	80	80	75	71	68	65	62	59	56	54	52	50	48	47	45	44	42	41	40	40	40
$W_{e,10}$	2.70	2.51	2.36	2.21	1.97	1.77	1.60	1.45	1.32	1.21	1.11	1.02	0.95	0.88	0.82	0.76	0.71	0.67	0.63	0.59	0.55	0.52	0.49

Two-span element, allowable wind pressure load											allow. w_p [kN/m ²]													
Span L[m]	3.50	3.75	4.00	4.25	4.50	4.75	5.00	5.25	5.50	5.75	6.00	6.25	6.50	6.75	7.00	7.25	7.50	7.75	8.00	8.25	8.50	8.75	9.00	
$b_A = 40$ [mm]	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	
$W_{e,10}$	0.85	0.79	0.74	0.70	0.67	0.64	0.61	0.58	0.56	0.54	0.52	0.50	0.49	0.47	0.46	0.44	0.43	0.42	0.41	0.40	0.39	0.38	0.37	
$b_B = 60$ [mm]	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	
$b_A \leq 60$ [mm]	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	
$W_{e,10}$	1.28	1.19	1.11	1.05	0.99	0.94	0.90	0.86	0.82	0.79	0.76	0.73	0.71	0.68	0.66	0.64	0.62	0.60	0.55	0.51	0.48	0.44	0.41	
$b_B \leq 80$ [mm]	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	79	76	73	71	68	65	
$b_A \leq 80$ [mm]	63	62	63	63	62	62	63	62	62	59	56	54	52	49	46	44	41	40	40	40	40	40	40	
$W_{e,10}$	2.11	1.97	1.84	1.74	1.64	1.55	1.48	1.40	1.32	1.21	1.11	1.02	0.94	0.85	0.78	0.71	0.65	0.60	0.55	0.51	0.48	0.44	0.41	
$b_B \leq 125$ [mm]	125	125	125	125	125	125	125	125	123	118	113	108	104	98	92	87	83	79	76	73	71	68	65	

Three-span element, allowable wind pressure load allow. w_p [kN/m ²]																							
Span L[m]	3.50	3.75	4.00	4.25	4.50	4.75	5.00	5.25	5.50	5.75	6.00	6.25	6.50	6.75	7.00	7.25	7.50	7.75	8.00	8.25	8.50	8.75	9.00
$b_A = 40$ [mm]	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40
$W_{e,10}$	1.01	0.94	0.88	0.83	0.79	0.74	0.71	0.67	0.64	0.62	0.59	0.57	0.54	0.52	0.51	0.49	0.47	0.46	0.44	0.43	0.42	0.40	0.39
$b_B = 60$ [mm]	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60
$b_A \leq 60$ [mm]	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40
$W_{e,10}$	1.35	1.26	1.18	1.11	1.05	0.99	0.94	0.90	0.86	0.82	0.79	0.75	0.73	0.70	0.67	0.65	0.63	0.61	0.59	0.57	0.55	0.52	0.49
$b_B \leq 80$ [mm]	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	78	75
$b_A \leq 80$ [mm]	62	62	63	62	62	63	63	62	62	59	56	54	52	50	48	47	45	44	42	41	40	40	40
$W_{e,10}$	2.10	1.97	1.84	1.73	1.64	1.55	1.47	1.40	1.32	1.21	1.11	1.02	0.95	0.88	0.82	0.76	0.71	0.67	0.63	0.59	0.55	0.52	0.49
$b_B \leq 125$ [mm]	125	125	125	125	125	125	125	125	123	118	113	108	104	100	97	93	90	88	85	82	80	78	75

Four-span element, allowable wind pressure load																								allow. w_p [kN/m ²]			
Span L[m]	3.50	3.75	4.00	4.25	4.50	4.75	5.00	5.25	5.50	5.75	6.00	6.25	6.50	6.75	7.00	7.25	7.50	7.75	8.00	8.25	8.50	8.75	9.00				
$b_A = 40$ [mm]	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40				
$W_{e,10}$	1.01	0.94	0.88	0.83	0.79	0.74	0.71	0.67	0.64	0.62	0.59	0.57	0.54	0.52	0.51	0.49	0.47	0.46	0.44	0.43	0.42	0.40	0.39				
$b_B = 60$ [mm]	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60				
$b_A \leq 60$ [mm]	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40				
$W_{e,10}$	1.35	1.26	1.18	1.11	1.05	0.99	0.94	0.90	0.86	0.82	0.79	0.75	0.73	0.70	0.67	0.65	0.63	0.61	0.59	0.57	0.55	0.52	0.49				
$b_B \leq 80$ [mm]	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	78	75				

Load tables for wind suction



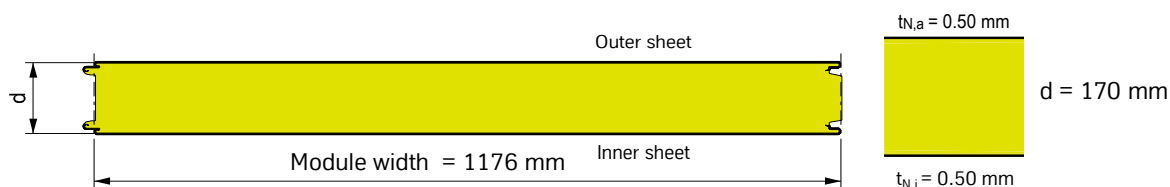
Single-span element, allowable wind suction load											allow. w_s [kN/m ²]													
Span L[m]		3.50	3.75	4.00	4.25	4.50	4.75	5.00	5.25	5.50	5.75	6.00	6.25	6.50	6.75	7.00	7.25	7.50	7.75	8.00	8.25	8.50	8.75	9.00
We,10	Colour group -III	2.92	2.72	2.50	2.21	1.97	1.77	1.60	1.45	1.32	1.21	1.11	1.02	0.95	0.88	0.82	0.76	0.71	0.67	0.63	0.59	0.55	0.52	0.49
		3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
		1.46	1.36	1.28	1.20	1.13	1.07	1.02	0.97	0.93	0.89	0.85	0.82	0.78	0.76	0.73	0.70	0.68	0.66	0.64	0.62	0.60	0.58	0.57
		6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6
$n_A = 3$																								
We,1		2.92	2.72	2.55	2.40	2.27	2.15	2.04	1.94	1.86	1.77	1.70	1.63	1.57	1.51	1.46	1.41	1.36	1.32	1.28	1.24	1.20	1.17	1.13
$n_A = 6$																								
We,1																								

Two-span element, allowable wind suction load allow. w_s [kN/m ²]																								
Span L[m]		3.50	3.75	4.00	4.25	4.50	4.75	5.00	5.25	5.50	5.75	6.00	6.25	6.50	6.75	7.00	7.25	7.50	7.75	8.00	8.25	8.50	8.75	9.00
We,10	Colour group I	1.27	1.18	1.10	1.03	0.96	0.91	0.86	0.82	0.78	0.74	0.71	0.68	0.60	0.54	0.50	0.48	0.47	0.45	0.44	0.42	0.41	0.38	0.35
$n_A \leq 4$		3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
We,1 $n_B \leq 6$		1.27 6	1.18 6	1.10 6	1.03 6	0.96 6	0.91 6	0.86 6	0.82 6	0.78 6	0.74 6	0.71 6	0.68 6	0.65 6	0.62 6	0.60 6	0.48 5	0.47 5	0.45 5	0.44 5	0.42 5	0.41 5	0.40 5	0.39 5
We,10	Colour group II	1.27	1.18	1.10	1.03	0.96	0.91	0.75	0.68	0.65	0.62	0.59	0.55	0.48	0.42	0.40	0.39	0.37	0.36	0.35	0.34	0.33	0.30	0.28
$n_A \leq 4$		3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
We,1 $n_B \leq 6$		1.27 6	1.18 6	1.10 6	1.03 6	0.96 6	0.91 6	0.86 6	0.82 6	0.65 5	0.62 5	0.59 5	0.56 5	0.54 5	0.52 5	0.50 5	0.39 4	0.37 4	0.36 4	0.35 4	0.34 4	0.33 4	0.32 4	0.31 4
We,10	Colour group III	1.27	0.98	0.91	0.86	0.65	0.61	0.57	0.54	0.46	0.36	0.28	0.26	0.27	0.24	0.20	0.16							
$n_A \leq 4$		3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3							
We,1 $n_B \leq 6$		1.27 6	1.18 6	0.91 5	0.86 5	0.80 5	0.61 4	0.57 4	0.54 4	0.52 4	0.49 4	0.47 4	0.45 4	0.27 3	0.27 3	0.28 3	0.28 3							

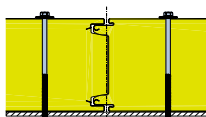
Three-span element, allowable wind suction load							allow. w_s [kN/m ²]																			
Span L[m]		3.50	3.75	4.00	4.25	4.50	4.75	5.00	5.25	5.50	5.75	6.00	6.25	6.50	6.75	7.00	7.25	7.50	7.75	8.00	8.25	8.50	8.75	9.00		
We,10	Colour group I	1.35	1.26	1.18	1.11	1.04	0.99	0.94	0.89	0.85	0.81	0.78	0.75	0.72	0.69	0.66	0.61	0.57	0.53	0.49	0.47	0.46	0.44	0.43		
$n_A \leq 4$		4	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3			
We,1		1.35	1.26	1.18	1.11	1.04	0.99	0.94	0.89	0.85	0.81	0.78	0.75	0.72	0.69	0.67	0.64	0.62	0.60	0.58	0.56	0.55	0.44	0.43		
$n_B \leq 6$		6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	5	5		
We,10	Colour group II	1.35	1.26	1.18	1.11	1.04	0.99	0.90	0.78	0.71	0.68	0.65	0.62	0.60	0.58	0.56	0.53	0.49	0.45	0.42	0.39	0.37	0.35	0.34		
$n_A \leq 4$		4	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3			
We,1		1.35	1.26	1.18	1.11	1.04	0.99	0.94	0.89	0.85	0.68	0.65	0.62	0.60	0.58	0.56	0.54	0.52	0.50	0.49	0.47	0.46	0.44	0.43		
$n_B \leq 6$		6	6	6	6	6	6	6	6	6	5	5	5	5	5	5	5	5	5	5	5	5	5	5		
We,10	Colour group III	1.13	1.05	0.98	0.90	0.70	0.66	0.63	0.59	0.57	0.54	0.52	0.47	0.42	0.38	0.34	0.32	0.31	0.30	0.29	0.28	0.27	0.25	0.23		
$n_A \leq 4$		3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3			
We,1		1.13	1.05	0.98	0.92	0.87	0.82	0.63	0.60	0.57	0.54	0.52	0.50	0.48	0.46	0.44	0.43	0.41	0.40	0.29	0.28	0.27	0.27	0.26		
$n_B \leq 6$		5	5	5	5	5	5	4	4	4	4	4	4	4	4	4	4	4	4	3	3	3	3	3		

Four-span element, allowable wind suction load allow. w_s [kN/m ²]																									
Span L[m]		3.50	3.75	4.00	4.25	4.50	4.75	5.00	5.25	5.50	5.75	6.00	6.25	6.50	6.75	7.00	7.25	7.50	7.75	8.00	8.25	8.50	8.75	9.00	
We,10	Colour group I	1.36	1.26	1.18	1.11	1.04	0.98	0.93	0.89	0.84	0.81	0.77	0.74	0.71	0.68	0.64	0.58	0.54	0.50	0.48	0.46	0.45	0.43	0.42	
$n_A \leq 4$		4	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	
We,1		1.36	1.26	1.18	1.11	1.04	0.98	0.93	0.89	0.84	0.81	0.77	0.74	0.71	0.68	0.66	0.63	0.61	0.59	0.57	0.46	0.45	0.43	0.42	
$n_B \leq 6$		6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	5	5	5	5	5
We,10	Colour group II	1.36	1.26	1.18	1.11	1.04	0.98	0.89	0.77	0.70	0.67	0.64	0.62	0.59	0.57	0.55	0.50	0.46	0.42	0.39	0.37	0.36	0.35	0.34	
$n_A \leq 4$		4	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	
We,1		1.36	1.26	1.18	1.11	1.04	0.98	0.93	0.89	0.84	0.67	0.64	0.62	0.59	0.57	0.55	0.53	0.51	0.49	0.48	0.46	0.45	0.35	0.34	
$n_B \leq 6$		6	6	6	6	6	6	6	6	6	6	5	5	5	5	5	5	5	5	5	5	5	4	4	4
We,10	Colour group III	1.13	1.05	0.98	0.86	0.70	0.66	0.62	0.59	0.56	0.54	0.51	0.44	0.39	0.34	0.33	0.32	0.31	0.30	0.27	0.25	0.23	0.21	0.20	
$n_A \leq 4$		3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
We,1		1.13	1.05	0.98	0.92	0.87	0.82	0.62	0.59	0.56	0.54	0.51	0.49	0.47	0.45	0.44	0.42	0.31	0.30	0.29	0.28	0.27	0.26	0.25	
$n_B \leq 6$		5	5	5	5	5	5	4	4	4	4	4	4	4	4	4	4	4	3	3	3	3	3	3	3

Load tables for preliminary design of buildings with normal internal temperatures (not valid for cold stores or chillrooms)



Type of fixing



End support:

screws with washer $d \geq 16$ mm
characteristic tensile force "pull through the sheet" $F_{z,k}(b_A) = 2.0$ kN/screw

Intermediate support:

screws with washer $d \geq 16$ mm
characteristic tensile force "pull through the sheet" $F_{z,k}(b_B) = 2.0$ kN/screw

The verification "pull out of the substructure" must be calculated separately!

Line b_A : Minimum end support width b_A in [mm] for the relevant wind-pressure load.

Line b_B : Minimum intermediate support width b_B in [mm] for the relevant wind-pressure load.

Line n_A : Number of screws per module width at the end support b_A for the relevant wind-suction load.

Line n_B : Number of screws per module width at the intermediate support b_B for the relevant wind-suction load.

Line $W_{e,10}$: Allowable wind pressure/suction load in [kN/m²] in consideration of the panel design with a deflection restriction $\max f \leq L/100$.

Line $W_{e,1}$: Allowable wind suction load in [kN/m²] in consideration of the fastener design.

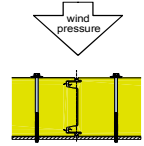
Colour group I, II, III: The following temperature differences between the cover sheets have been taken into consideration for secondary loads in the cover sheets, in accordance with the general approval issued by the building inspection authorities:

Season	Colour Group	t_{indoor}	$t_{\text{outdoor}} - t_{\text{indoor}}$
summer	I / II / III	25°C	+30 / +40 / +55 °C
winter	all	20°C	-40 °C

The tables do not replace the structural analysis required for execution of the constructional work. The allowable wind loads are specified in [kN/m²] and have been determined in accordance with the provisions of official approval no. Z-10.4-428 issued by the German building inspection authorities. The load tables contain both load and material safety factors.

Please note the maximum length supplied, especially in the case of multi-span elements.

Load tables for wind pressure



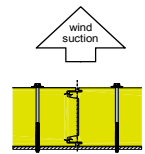
Single-span element, allowable wind pressure load allow. w_p [kN/m ²]																							
Span L[m]	3.50	3.75	4.00	4.25	4.50	4.75	5.00	5.25	5.50	5.75	6.00	6.25	6.50	6.75	7.00	7.25	7.50	7.75	8.00	8.25	8.50	8.75	9.00
$b_A = 40$ [mm]	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40
$W_{e,10}$	1.35	1.26	1.18	1.11	1.05	0.99	0.94	0.90	0.86	0.82	0.79	0.75	0.73	0.70	0.67	0.65	0.63	0.61	0.59	0.57	0.55	0.54	0.52
$b_A \leq 60$ [mm]	60	60	60	60	60	60	60	60	60	60	60	57	55	53	51	49	48	46	45	43	42	41	40
$W_{e,10}$	2.02	1.89	1.77	1.67	1.57	1.49	1.41	1.35	1.29	1.23	1.17	1.08	1.00	0.93	0.86	0.80	0.75	0.70	0.66	0.62	0.58	0.55	0.52
$b_A \leq 80$ [mm]	80	80	80	80	80	75	72	68	65	62	60	57	55	53	51	49	48	46	45	43	42	41	40
$W_{e,10}$	2.70	2.51	2.36	2.22	2.09	1.87	1.69	1.53	1.40	1.28	1.17	1.08	1.00	0.93	0.86	0.80	0.75	0.70	0.66	0.62	0.58	0.55	0.52

Two-span element, allowable wind pressure load allow. w_p [kN/m ²]																							
Span L[m]	3.50	3.75	4.00	4.25	4.50	4.75	5.00	5.25	5.50	5.75	6.00	6.25	6.50	6.75	7.00	7.25	7.50	7.75	8.00	8.25	8.50	8.75	9.00
$b_A = 40$ [mm]	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40
$W_{e,10}$	0.84	0.78	0.73	0.69	0.65	0.62	0.59	0.57	0.55	0.53	0.51	0.49	0.47	0.46	0.45	0.43	0.42	0.41	0.40	0.39	0.38	0.37	0.36
$b_B = 60$ [mm]	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60
$b_A \leq 60$ [mm]	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40
$W_{e,10}$	1.27	1.18	1.10	1.04	0.98	0.93	0.88	0.84	0.81	0.78	0.75	0.72	0.69	0.67	0.65	0.63	0.61	0.59	0.58	0.53	0.49	0.46	0.43
$b_B \leq 80$ [mm]	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	77	74	71	68
$b_A \leq 80$ [mm]	62	63	62	62	63	62	63	62	63	62	60	57	55	52	49	46	43	41	40	40	40	40	40
$W_{e,10}$	2.10	1.97	1.84	1.73	1.64	1.55	1.48	1.40	1.34	1.28	1.17	1.08	1.00	0.91	0.82	0.75	0.68	0.63	0.58	0.53	0.49	0.46	0.43
$b_B \leq 125$ [mm]	125	125	125	125	125	125	125	125	125	125	119	115	110	104	98	92	88	84	80	77	74	71	68

Three-span element, allowable wind pressure load allow. w_p [kN/m ²]																							
Span L[m]	3.50	3.75	4.00	4.25	4.50	4.75	5.00	5.25	5.50	5.75	6.00	6.25	6.50	6.75	7.00	7.25	7.50	7.75	8.00	8.25	8.50	8.75	9.00
$b_A = 40$ [mm]	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40
$W_{e,10}$	1.01	0.94	0.88	0.83	0.79	0.74	0.71	0.67	0.64	0.62	0.59	0.57	0.54	0.52	0.51	0.49	0.47	0.46	0.44	0.43	0.42	0.40	0.39
$b_B = 60$ [mm]	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60
$b_A \leq 60$ [mm]	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40
$W_{e,10}$	1.35	1.26	1.18	1.11	1.05	0.99	0.94	0.90	0.86	0.82	0.79	0.75	0.73	0.70	0.67	0.65	0.63	0.61	0.59	0.57	0.55	0.54	0.52
$b_B \leq 80$ [mm]	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80
$b_A \leq 80$ [mm]	62	62	62	63	63	62	62	63	63	62	60	57	55	53	51	49	48	46	45	43	42	41	40
$W_{e,10}$	2.10	1.96	1.84	1.74	1.64	1.55	1.47	1.40	1.34	1.28	1.17	1.08	1.00	0.93	0.86	0.80	0.75	0.70	0.66	0.62	0.58	0.55	0.52
$b_B \leq 125$ [mm]	125	125	125	125	125	125	125	125	125	125	119	115	110	106	102	99	96	92	90	87	84	82	80

Four-span element, allowable wind pressure load											allow. w_p [kN/m ²]													
Span L[m]	3.50	3.75	4.00	4.25	4.50	4.75	5.00	5.25	5.50	5.75	6.00	6.25	6.50	6.75	7.00	7.25	7.50	7.75	8.00	8.25	8.50	8.75	9.00	
$b_A = 40$ [mm]	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	
$W_{e,10}$	1.01	0.94	0.88	0.83	0.79	0.74	0.71	0.67	0.64	0.62	0.59	0.57	0.54	0.52	0.51	0.49	0.47	0.46	0.44	0.43	0.42	0.40	0.39	
$b_B = 60$ [mm]	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	
$b_A \leq 60$ [mm]	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	
$W_{e,10}$	1.35	1.26	1.18	1.11	1.05	0.99	0.94	0.90	0.86	0.82	0.79	0.75	0.73	0.70	0.67	0.65	0.63	0.61	0.59	0.57	0.55	0.54	0.52	
$b_B \leq 80$ [mm]	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	
$b_A \leq 80$ [mm]	63	63	62	62	62	62	62	62	63	62	60	57	55	53	51	49	48	46	45	43	42	41	40	
$W_{e,10}$	2.11	1.97	1.84	1.73	1.64	1.55	1.47	1.40	1.34	1.28	1.17	1.08	1.00	0.93	0.86	0.80	0.75	0.70	0.66	0.62	0.58	0.55	0.52	
$b_B \leq 125$ [mm]	125	125	125	125	125	125	125	125	125	125	119	115	110	106	102	99	96	92	90	87	84	82	80	

Load tables for wind suction



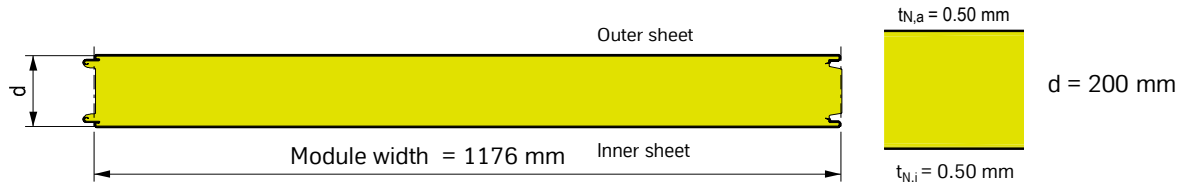
Single-span element, allowable wind suction load											allow. w_s [kN/m ²]																	
Span L[m]		3.50	3.75	4.00	4.25	4.50	4.75	5.00	5.25	5.50	5.75	6.00	6.25	6.50	6.75	7.00	7.25	7.50	7.75	8.00	8.25	8.50	8.75	9.00				
We,10		Colour group I-III	2.92	2.72	2.55	2.34	2.09	1.87	1.69	1.53	1.40	1.28	1.17	1.08	1.00	0.93	0.86	0.80	0.75	0.70	0.66	0.62	0.58	0.55	0.52			
$n_A = 3$			3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3			
We,1			1.46	1.36	1.28	1.20	1.13	1.07	1.02	0.97	0.93	0.89	0.85	0.82	0.78	0.76	0.73	0.70	0.68	0.66	0.64	0.62	0.60	0.58	0.57			
$n_A = 6$			6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6		
We,1			2.92	2.72	2.55	2.40	2.27	2.15	2.04	1.94	1.86	1.77	1.70	1.63	1.57	1.51	1.46	1.41	1.36	1.32	1.28	1.24	1.20	1.17	1.13			

Two-span element, allowable wind suction load allow. w_s [kN/m ²]																								
Span L[m]		3.50	3.75	4.00	4.25	4.50	4.75	5.00	5.25	5.50	5.75	6.00	6.25	6.50	6.75	7.00	7.25	7.50	7.75	8.00	8.25	8.50	8.75	9.00
We,10	Colour group I $n_A \leq 4$ We,1 $n_B \leq 6$	1.28	1.19	1.11	1.04	0.97	0.92	0.87	0.82	0.78	0.75	0.71	0.68	0.63	0.56	0.50	0.49	0.47	0.45	0.44	0.42	0.41	0.38	0.35
3		3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	
1.29		1.19	1.11	1.04	0.97	0.92	0.87	0.82	0.78	0.75	0.71	0.68	0.65	0.63	0.60	0.58	0.47	0.45	0.44	0.42	0.41	0.40	0.39	
6		6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	5	5	5	5	5	5	5	5
We,10	Colour group II $n_A \leq 4$ We,1 $n_B \leq 6$	1.28	1.19	1.11	1.04	0.97	0.92	0.84	0.69	0.65	0.62	0.59	0.56	0.48	0.42	0.40	0.39	0.37	0.36	0.35	0.34	0.31	0.29	0.26
3		3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	
1.29		1.19	1.11	1.04	0.97	0.92	0.87	0.82	0.65	0.62	0.59	0.57	0.54	0.52	0.50	0.39	0.37	0.36	0.35	0.34	0.33	0.32	0.31	
6		6	6	6	6	6	6	6	5	5	5	5	5	5	5	5	4	4	4	4	4	4	4	4
We,10	Colour group III $n_A \leq 4$ We,1 $n_B \leq 6$	1.29	1.19	0.92	0.86	0.77	0.58	0.57	0.55	0.47	0.35	0.26	0.21	0.22	0.20	0.16								
3		3	3	3	3	3	3	3	3	3	3	3	3	3	3									
1.29		1.19	0.92	0.86	0.81	0.76	0.57	0.55	0.52	0.50	0.47	0.45	0.22	0.22	0.23									
6		6	5	5	5	5	4	4	4	4	4	4	4	3	3	3								

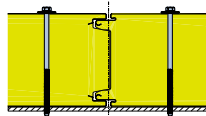
Three-span element, allowable wind suction load							allow. w_s [kN/m ²]																		
Span L[m]		3.50	3.75	4.00	4.25	4.50	4.75	5.00	5.25	5.50	5.75	6.00	6.25	6.50	6.75	7.00	7.25	7.50	7.75	8.00	8.25	8.50	8.75	9.00	
We,10	Colour group I	1.36	1.26	1.18	1.11	1.05	0.99	0.94	0.89	0.85	0.81	0.78	0.75	0.72	0.69	0.66	0.61	0.56	0.52	0.49	0.47	0.46	0.44	0.43	
$n_A \leq 4$		4	4	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	
We,1		1.36	1.26	1.18	1.11	1.05	0.99	0.94	0.89	0.85	0.81	0.78	0.75	0.72	0.69	0.67	0.64	0.62	0.60	0.58	0.57	0.46	0.44	0.43	
$n_B \leq 6$		6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	5	5	5	
We,10	Colour group II	1.36	1.26	1.18	1.11	1.05	0.99	0.88	0.75	0.71	0.68	0.65	0.62	0.60	0.58	0.55	0.50	0.46	0.42	0.39	0.38	0.37	0.35	0.34	
$n_A \leq 4$		4	4	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	
We,1		1.36	1.26	1.18	1.11	1.05	0.99	0.94	0.89	0.85	0.68	0.65	0.62	0.60	0.58	0.56	0.54	0.52	0.50	0.49	0.47	0.46	0.36	0.35	
$n_B \leq 6$		6	6	6	6	6	6	6	6	6	5	5	5	5	5	5	5	5	5	5	5	5	4	4	
We,10	Colour group III	1.13	1.05	0.98	0.84	0.70	0.66	0.63	0.60	0.57	0.53	0.45	0.39	0.36	0.35	0.33	0.32	0.31	0.28	0.25	0.23	0.21	0.20	0.18	
$n_A \leq 4$		3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	
We,1		1.13	1.05	0.98	0.92	0.87	0.66	0.63	0.60	0.57	0.54	0.52	0.50	0.48	0.46	0.33	0.32	0.31	0.30	0.29	0.28	0.27	0.27	0.26	
$n_B \leq 6$		5	5	5	5	5	4	4	4	4	4	4	4	4	4	3	3	3	3	3	3	3	3	3	

Four-span element, allowable wind suction load											allow. w_s [kN/m ²]													
Span L[m]		3.50	3.75	4.00	4.25	4.50	4.75	5.00	5.25	5.50	5.75	6.00	6.25	6.50	6.75	7.00	7.25	7.50	7.75	8.00	8.25	8.50	8.75	9.00
We,10	Colour group I	1.36	1.27	1.19	1.11	1.05	0.99	0.94	0.89	0.85	0.81	0.77	0.74	0.71	0.68	0.64	0.59	0.54	0.49	0.48	0.46	0.45	0.44	0.42
$n_A \leq 4$		4	4	4	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
We,1		1.36	1.27	1.19	1.11	1.05	0.99	0.94	0.89	0.85	0.81	0.77	0.74	0.71	0.68	0.66	0.64	0.61	0.59	0.57	0.46	0.45	0.44	0.42
$n_B \leq 6$		6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	5	5	5	5
We,10	Colour group II	1.36	1.27	1.19	1.11	1.05	0.99	0.88	0.74	0.71	0.67	0.65	0.62	0.59	0.57	0.53	0.48	0.44	0.40	0.38	0.37	0.36	0.35	0.34
$n_A \leq 4$		4	4	4	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
We,1		1.36	1.27	1.19	1.11	1.05	0.99	0.94	0.89	0.85	0.67	0.65	0.62	0.59	0.57	0.55	0.53	0.51	0.49	0.48	0.46	0.36	0.35	0.34
$n_B \leq 6$		6	6	6	6	6	6	6	6	6	6	5	5	5	5	5	5	5	5	5	5	4	4	4
We,10	Colour group III	1.06	0.85	0.79	0.74	0.70	0.66	0.63	0.59	0.57	0.52	0.44	0.38	0.36	0.34	0.33	0.31	0.28	0.25	0.22	0.20	0.18	0.16	
$n_A \leq 4$		3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	
We,1		1.14	1.06	0.99	0.93	0.70	0.66	0.63	0.59	0.57	0.54	0.52	0.49	0.47	0.46	0.33	0.32	0.31	0.30	0.29	0.28	0.27	0.26	
$n_B \leq 6$		5	5	5	5	4	4	4	4	4	4	4	4	4	4	3	3	3	3	3	3	3	3	

Load tables for preliminary design of buildings with normal internal temperatures (not valid for cold stores or chillrooms)



Type of fixing



End support:

screws with washer $d \geq 16$ mm
characteristic tensile force "pull through the sheet" $F_{z,k}(b_A) = 2.0$ kN/screw

Intermediate support:

screws with washer $d \geq 16$ mm
characteristic tensile force "pull through the sheet" $F_{z,k}(b_B) = 2.0$ kN/screw

The verification "pull out of the substructure" must be calculated separately!

Line b_A : Minimum end support width b_A in [mm] for the relevant wind-pressure load.

Line b_B : Minimum intermediate support width b_B in [mm] for the relevant wind-pressure load.

Line n_A : Number of screws per module width at the end support b_A for the relevant wind-suction load.

Line n_B : Number of screws per module width at the intermediate support b_B for the relevant wind-suction load.

Line $W_{e,10}$: Allowable wind pressure/suction load in [kN/m²] in consideration of the panel design with a deflection restriction $\max f \leq L/100$.

Line $W_{e,1}$: Allowable wind suction load in [kN/m²] in consideration of the fastener design.

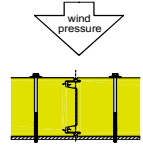
Colour group I, II, III: The following temperature differences between the cover sheets have been taken into consideration for secondary loads in the cover sheets, in accordance with the general approval issued by the building inspection authorities:

Season	Colour Group	t_{indoor}	$t_{\text{outdoor}} - t_{\text{indoor}}$
summer	I / II / III	25°C	+30 / +40 / +55 °C
winter	all	20°C	-40 °C

The tables do not replace the structural analysis required for execution of the constructional work. The allowable wind loads are specified in [kN/m²] and have been determined in accordance with the provisions of official approval no. Z-10.4-428 issued by the German building inspection authorities. The load tables contain both load and material safety factors.

Please note the maximum length supplied, especially in the case of multi-span elements.

Load tables for wind pressure



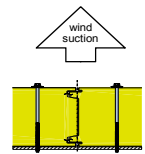
Single-span element, allowable wind pressure load allow. w_p [kN/m ²]																							
Span L[m]	3.50	3.75	4.00	4.25	4.50	4.75	5.00	5.25	5.50	5.75	6.00	6.25	6.50	6.75	7.00	7.25	7.50	7.75	8.00	8.25	8.50	8.75	9.00
$b_A = 40$ [mm]	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40
$W_{e,10}$	1.35	1.26	1.18	1.11	1.05	0.99	0.94	0.90	0.86	0.82	0.79	0.75	0.73	0.70	0.67	0.65	0.63	0.61	0.59	0.57	0.55	0.54	0.52
$b_A \leq 60$ [mm]	60	60	60	60	60	60	60	60	60	60	60	60	58	56	54	52	50	48	47	45	44	43	42
$W_{e,10}$	2.02	1.89	1.77	1.67	1.57	1.49	1.41	1.35	1.29	1.23	1.18	1.13	1.05	0.97	0.90	0.84	0.79	0.74	0.69	0.65	0.61	0.58	0.55
$b_A \leq 80$ [mm]	80	80	80	80	80	79	75	72	68	65	63	60	58	56	54	52	50	48	47	45	44	43	42
$W_{e,10}$	2.70	2.51	2.36	2.22	2.09	1.96	1.77	1.61	1.46	1.34	1.23	1.13	1.05	0.97	0.90	0.84	0.79	0.74	0.69	0.65	0.61	0.58	0.55

Two-span element, allowable wind pressure load allow. w_p [kN/m ²]																							
Span L[m]	3.50	3.75	4.00	4.25	4.50	4.75	5.00	5.25	5.50	5.75	6.00	6.25	6.50	6.75	7.00	7.25	7.50	7.75	8.00	8.25	8.50	8.75	9.00
$b_A = 40$ [mm]	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40
$W_{e,10}$	0.84	0.78	0.73	0.68	0.64	0.61	0.58	0.55	0.53	0.51	0.49	0.47	0.46	0.44	0.43	0.42	0.41	0.40	0.39	0.38	0.37	0.36	0.35
$b_B = 60$ [mm]	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60
$b_A \leq 60$ [mm]	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40
$W_{e,10}$	1.28	1.19	1.10	1.04	0.97	0.92	0.88	0.83	0.80	0.76	0.73	0.71	0.68	0.66	0.64	0.62	0.60	0.58	0.56	0.53	0.49	0.45	0.42
$b_B \leq 80$ [mm]	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	78	74	71	68
$b_A \leq 80$ [mm]	63	62	63	62	62	63	62	63	63	63	63	60	58	54	51	47	44	42	40	40	40	40	40
$W_{e,10}$	2.11	1.97	1.84	1.73	1.64	1.55	1.47	1.40	1.34	1.28	1.23	1.13	1.05	0.95	0.85	0.77	0.70	0.63	0.58	0.53	0.49	0.45	0.42
$b_B \leq 125$ [mm]	125	125	125	125	125	125	125	125	125	125	125	120	115	109	101	96	90	86	82	78	74	71	68

Three-span element, allowable wind pressure load allow. w_p [kN/m ²]																							
Span L[m]	3.50	3.75	4.00	4.25	4.50	4.75	5.00	5.25	5.50	5.75	6.00	6.25	6.50	6.75	7.00	7.25	7.50	7.75	8.00	8.25	8.50	8.75	9.00
$b_A = 40$ [mm]	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40
$W_{e,10}$	1.01	0.94	0.88	0.83	0.79	0.74	0.71	0.67	0.64	0.62	0.59	0.57	0.54	0.52	0.51	0.49	0.47	0.46	0.44	0.43	0.42	0.40	0.39
$b_B = 60$ [mm]	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60
$b_A \leq 60$ [mm]	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40
$W_{e,10}$	1.35	1.26	1.18	1.11	1.05	0.99	0.94	0.90	0.86	0.82	0.79	0.75	0.73	0.70	0.67	0.65	0.63	0.61	0.59	0.57	0.55	0.54	0.52
$b_B \leq 80$ [mm]	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80
$b_A \leq 80$ [mm]	62	63	63	62	62	62	63	63	62	63	63	60	58	56	54	52	50	48	47	45	44	43	42
$W_{e,10}$	2.11	1.97	1.84	1.73	1.64	1.55	1.47	1.40	1.34	1.28	1.23	1.13	1.05	0.97	0.90	0.84	0.79	0.74	0.69	0.65	0.61	0.58	0.55
$b_B \leq 125$ [mm]	125	125	125	125	125	125	125	125	125	125	125	120	115	111	107	103	100	97	94	91	88	86	83

Four-span element, allowable wind pressure load											allow. w_p [kN/m ²]													
Span L[m]	3.50	3.75	4.00	4.25	4.50	4.75	5.00	5.25	5.50	5.75	6.00	6.25	6.50	6.75	7.00	7.25	7.50	7.75	8.00	8.25	8.50	8.75	9.00	
$b_A = 40$ [mm]	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	
$W_{e,10}$	1.01	0.94	0.88	0.83	0.79	0.74	0.71	0.67	0.64	0.62	0.59	0.57	0.54	0.52	0.51	0.49	0.47	0.46	0.44	0.43	0.42	0.40	0.39	
$b_B = 60$ [mm]	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	
$b_A \leq 60$ [mm]	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	
$W_{e,10}$	1.35	1.26	1.18	1.11	1.05	0.99	0.94	0.90	0.86	0.82	0.79	0.75	0.73	0.70	0.67	0.65	0.63	0.61	0.59	0.57	0.55	0.54	0.52	
$b_B \leq 80$ [mm]	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	
$b_A \leq 80$ [mm]	63	62	62	63	62	62	62	63	62	63	63	60	58	56	54	52	50	48	47	45	44	43	41	
$W_{e,10}$	2.11	1.97	1.84	1.74	1.64	1.55	1.47	1.40	1.34	1.28	1.23	1.13	1.05	0.97	0.90	0.84	0.79	0.74	0.69	0.65	0.61	0.57	0.54	
$b_B \leq 125$ [mm]	125	125	125	125	125	125	125	125	125	125	125	120	115	111	107	103	100	97	94	91	88	85	82	

Load tables for wind suction



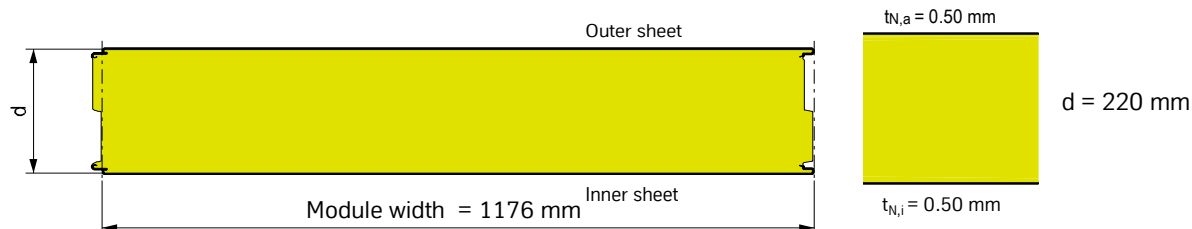
Single-span element, allowable wind suction load											allow. w_s [kN/m ²]														
Span L[m]		3.50	3.75	4.00	4.25	4.50	4.75	5.00	5.25	5.50	5.75	6.00	6.25	6.50	6.75	7.00	7.25	7.50	7.75	8.00	8.25	8.50	8.75	9.00	
We,10	Colour group I-III	2.92	2.72	2.55	2.40	2.19	1.96	1.77	1.61	1.46	1.34	1.23	1.13	1.05	0.97	0.90	0.84	0.79	0.74	0.69	0.65	0.61	0.58	0.55	
$n_A = 3$		3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	
We,1		1.46	1.36	1.28	1.20	1.13	1.07	1.02	0.97	0.93	0.89	0.85	0.82	0.78	0.76	0.73	0.70	0.68	0.66	0.64	0.62	0.60	0.58	0.57	
$n_A = 6$		6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6
We,1		2.92	2.72	2.55	2.40	2.27	2.15	2.04	1.94	1.86	1.77	1.70	1.63	1.57	1.51	1.46	1.41	1.36	1.32	1.28	1.24	1.20	1.17	1.13	

Two-span element, allowable wind suction load allow. w_s [kN/m ²]																								
Span L[m]		3.50	3.75	4.00	4.25	4.50	4.75	5.00	5.25	5.50	5.75	6.00	6.25	6.50	6.75	7.00	7.25	7.50	7.75	8.00	8.25	8.50	8.75	9.00
We,10	Colour group I $n_A \leq 4$ We,1 $n_B \leq 6$	1.31	1.21	1.13	1.05	0.99	0.93	0.88	0.83	0.79	0.75	0.72	0.69	0.64	0.56	0.51	0.49	0.47	0.46	0.44	0.43	0.40	0.36	0.33
4		3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	
1.31		1.21	1.13	1.05	0.99	0.93	0.88	0.83	0.79	0.75	0.72	0.69	0.66	0.63	0.61	0.49	0.47	0.46	0.44	0.43	0.41	0.40	0.39	
		6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	5	5	5	5	5	5	5	5
We,10	Colour group II $n_A \leq 4$ We,1 $n_B \leq 6$	1.31	1.21	1.13	1.05	0.99	0.93	0.88	0.70	0.66	0.63	0.60	0.55	0.46	0.42	0.41	0.39	0.38	0.36	0.34	0.30	0.27	0.24	0.23
4		3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	
1.31		1.21	1.13	1.05	0.99	0.93	0.88	0.83	0.66	0.63	0.60	0.57	0.55	0.53	0.41	0.39	0.38	0.36	0.35	0.34	0.33	0.32	0.31	
		6	6	6	6	6	6	6	6	5	5	5	5	5	5	4	4	4	4	4	4	4	4	4
We,10	Colour group III $n_A \leq 4$ We,1 $n_B \leq 6$	1.31	1.21	0.94	0.88	0.82	0.55	0.51	0.49	0.45	0.30	0.13												
4		3	3	3	3	3	3	3	3	3	3	3												
1.31		1.21	1.12	0.88	0.82	0.78	0.51	0.49	0.48	0.47	0.47													
		6	6	6	5	5	5	4	4	4	4	4												

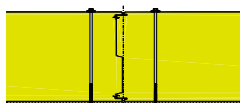
Three-span element, allowable wind suction load							allow. w_s [kN/m ²]																		
Span L[m]		3.50	3.75	4.00	4.25	4.50	4.75	5.00	5.25	5.50	5.75	6.00	6.25	6.50	6.75	7.00	7.25	7.50	7.75	8.00	8.25	8.50	8.75	9.00	
We,10	Colour group I	1.36	1.27	1.19	1.12	1.05	0.99	0.94	0.90	0.85	0.82	0.78	0.75	0.72	0.67	0.61	0.55	0.52	0.50	0.49	0.47	0.46	0.44	0.43	
$n_A \leq 4$		4	4	4	4	4	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3		
We,1		1.36	1.27	1.19	1.12	1.05	0.99	0.94	0.90	0.86	0.82	0.78	0.75	0.72	0.69	0.67	0.64	0.62	0.60	0.49	0.47	0.46	0.44	0.43	
$n_B \leq 6$		6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	5	5	5	5	5	
We,10	Colour group II	1.36	1.27	1.19	1.12	1.05	0.95	0.79	0.75	0.71	0.68	0.65	0.63	0.58	0.51	0.46	0.43	0.42	0.40	0.39	0.38	0.37	0.36	0.35	
$n_A \leq 4$		4	4	4	4	4	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3		
We,1		1.36	1.27	1.19	1.12	1.05	0.99	0.94	0.75	0.71	0.68	0.65	0.63	0.60	0.58	0.56	0.54	0.52	0.40	0.39	0.38	0.37	0.36	0.35	
$n_B \leq 6$		6	6	6	6	6	6	6	5	5	5	5	5	5	5	5	5	5	4	4	4	4	4	4	
We,10	Colour group III	1.14	1.06	0.98	0.74	0.70	0.66	0.63	0.55	0.43	0.41	0.39	0.37	0.31	0.26	0.22	0.19	0.16							
$n_A \leq 4$		3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3							
We,1		1.14	1.06	0.99	0.93	0.70	0.66	0.63	0.60	0.57	0.54	0.39	0.38	0.36	0.35	0.33	0.32	0.31							
$n_B \leq 6$		5	5	5	5	4	4	4	4	4	4	3	3	3	3	3	3	3							

Four-span element, allowable wind suction load allow. w_s [kN/m ²]																								
Span L[m]		3.50	3.75	4.00	4.25	4.50	4.75	5.00	5.25	5.50	5.75	6.00	6.25	6.50	6.75	7.00	7.25	7.50	7.75	8.00	8.25	8.50	8.75	9.00
We,10	Colour group I	1.37	1.28	1.19	1.12	1.06	1.00	0.94	0.90	0.85	0.82	0.78	0.75	0.72	0.67	0.60	0.54	0.51	0.50	0.48	0.47	0.45	0.44	0.43
$n_A \leq 4$		4	4	4	4	4	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	
We,1		1.37	1.28	1.19	1.12	1.06	1.00	0.94	0.90	0.85	0.82	0.78	0.75	0.72	0.69	0.66	0.64	0.62	0.60	0.48	0.47	0.45	0.44	0.43
$n_B \leq 6$		6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	5	5	5	5	5
We,10	Colour group II	1.37	1.28	1.13	0.94	0.88	0.83	0.79	0.75	0.71	0.68	0.65	0.62	0.57	0.50	0.45	0.43	0.41	0.40	0.38	0.37	0.36	0.35	0.34
$n_A \leq 4$		4	4	4	4	4	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	
We,1		1.37	1.28	1.19	1.12	1.05	0.83	0.79	0.75	0.71	0.68	0.65	0.62	0.60	0.57	0.55	0.53	0.51	0.40	0.38	0.37	0.36	0.35	0.34
$n_B \leq 6$		6	6	6	6	6	5	5	5	5	5	5	5	5	5	5	5	5	4	4	4	4	4	4
We,10	Colour group III	0.92	0.85	0.80	0.75	0.68	0.58	0.51	0.45	0.43	0.41	0.39	0.37	0.30	0.25	0.21	0.17							
$n_A \leq 4$		3	3	3	3	3	3	3	3	3	3	2	3	3	3	3	3							
We,1		0.92	0.85	0.80	0.75	0.70	0.66	0.63	0.60	0.57	0.54	0.39	0.37	0.36	0.34	0.33	0.32							
$n_B \leq 6$		4	4	4	4	4	4	4	4	4	4	3	3	3	3	3	3							

Load tables for preliminary design of buildings with normal internal temperatures
(not valid for cold stores or chillrooms)



Type of fixing



End support:

screws with washer $d \geq 16$ mm
characteristic tensile force "pull through the sheet" $F_{z,k}(b_A) = 2.0$ kN/screw

Intermediate support:

screws with washer $d \geq 16$ mm
characteristic tensile force "pull through the sheet" $F_{z,k}(b_B) = 2.0$ kN/screw

The verification "pull out of the substructure" must be calculated separately!

Line b_A : Minimum end support width b_A in [mm] for the relevant wind-pressure load.

Line b_B : Minimum intermediate support width b_B in [mm] for the relevant wind-pressure load.

Line n_A : Number of screws per module width at the end support b_A for the relevant wind-suction load.

Line n_B : Number of screws per module width at the intermediate support b_B for the relevant wind-suction load.

Line $W_{e,10}$: Allowable wind pressure/suction load in [kN/m²] in consideration of the panel design with a deflection restriction $\max f \leq L/100$.

Line $W_{e,1}$: Allowable wind suction load in [kN/m²] in consideration of the fastener design.

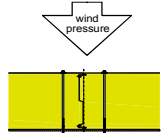
Colour group I, II, III: The following temperature differences between the cover sheets have been taken into consideration for secondary loads in the cover sheets, in accordance with the general approval issued by the building inspection authorities:

Season	Colour Group	t_{indoor}	$t_{\text{outdoor}} - t_{\text{indoor}}$
summer	I / II / III	25°C	+30 / +40 / +55 °C
winter	all	20°C	-40 °C

The tables do not replace the structural analysis required for execution of the constructional work. The allowable wind loads are specified in [kN/m²] and have been determined in accordance with the provisions of official approval no. Z-10.4-428 issued by the German building inspection authorities. The load tables contain both load and material safety factors.

Please note the maximum length supplied, especially in the case of multi-span elements.

Load tables for wind pressure



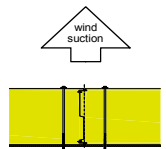
Single-span element, allowable wind pressure load allow. w_p [kN/m ²]																							
Span L[m]	3.50	3.75	4.00	4.25	4.50	4.75	5.00	5.25	5.50	5.75	6.00	6.25	6.50	6.75	7.00	7.25	7.50	7.75	8.00	8.25	8.50	8.75	9.00
$b_A = 40$ [mm]	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40
$W_{e,10}$	1.35	1.26	1.18	1.11	1.05	0.99	0.94	0.90	0.86	0.82	0.79	0.75	0.73	0.70	0.67	0.65	0.63	0.61	0.59	0.57	0.55	0.54	0.52
$b_A \leq 60$ [mm]	60	60	60	60	60	60	60	60	60	60	60	60	58	56	54	52	51	49	47	46	45	43	42
$W_{e,10}$	2.02	1.89	1.77	1.67	1.57	1.49	1.41	1.35	1.29	1.23	1.18	1.13	1.06	0.98	0.91	0.85	0.79	0.74	0.70	0.66	0.62	0.58	0.55
$b_A \leq 80$ [mm]	80	80	80	80	80	80	76	72	69	66	63	61	58	56	54	52	51	49	47	46	45	43	42
$W_{e,10}$	2.70	2.51	2.36	2.22	2.09	1.98	1.79	1.62	1.48	1.35	1.24	1.15	1.06	0.98	0.91	0.85	0.79	0.74	0.70	0.66	0.62	0.58	0.55

Two-span element, allowable wind pressure load allow. w_p [kN/m ²]																							
Span L[m]	3.50	3.75	4.00	4.25	4.50	4.75	5.00	5.25	5.50	5.75	6.00	6.25	6.50	6.75	7.00	7.25	7.50	7.75	8.00	8.25	8.50	8.75	9.00
$b_A = 40$ [mm]	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40
$W_{e,10}$	0.85	0.79	0.73	0.68	0.64	0.61	0.58	0.55	0.53	0.50	0.49	0.47	0.45	0.44	0.42	0.41	0.40	0.39	0.38	0.37	0.36	0.35	0.34
$b_B = 60$ [mm]	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60
$b_A \leq 60$ [mm]	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40
$W_{e,10}$	1.30	1.20	1.11	1.04	0.98	0.92	0.88	0.83	0.79	0.76	0.73	0.70	0.68	0.65	0.63	0.61	0.59	0.57	0.56	0.51	0.47	0.43	0.39
$b_B \leq 80$ [mm]	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	76	73	70	66
$b_A \leq 80$ [mm]	62	62	62	62	63	62	63	63	63	62	62	61	58	55	51	47	44	41	40	40	40	40	40
$W_{e,10}$	2.10	1.97	1.84	1.73	1.64	1.55	1.47	1.40	1.34	1.28	1.23	1.15	1.06	0.96	0.85	0.76	0.69	0.62	0.56	0.51	0.47	0.43	0.39
$b_B \leq 125$ [mm]	125	125	125	125	125	125	125	125	125	125	125	121	117	110	101	95	90	85	81	76	73	70	66

Three-span element, allowable wind pressure load allow. w_p [kN/m ²]																							
Span L[m]	3.50	3.75	4.00	4.25	4.50	4.75	5.00	5.25	5.50	5.75	6.00	6.25	6.50	6.75	7.00	7.25	7.50	7.75	8.00	8.25	8.50	8.75	9.00
$b_A = 40$ [mm]	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40
$W_{e,10}$	1.01	0.94	0.88	0.83	0.79	0.74	0.71	0.67	0.64	0.62	0.59	0.57	0.54	0.52	0.51	0.49	0.47	0.46	0.44	0.43	0.42	0.40	0.39
$b_B = 60$ [mm]	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60
$b_A \leq 60$ [mm]	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40
$W_{e,10}$	1.35	1.26	1.18	1.11	1.05	0.99	0.94	0.90	0.86	0.82	0.79	0.75	0.73	0.70	0.67	0.65	0.63	0.61	0.59	0.57	0.55	0.54	0.52
$b_B \leq 80$ [mm]	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80
$b_A \leq 80$ [mm]	62	63	63	62	62	63	62	63	62	62	62	61	58	56	54	52	51	49	47	45	43	42	40
$W_{e,10}$	2.10	1.97	1.84	1.73	1.64	1.55	1.47	1.40	1.34	1.28	1.23	1.14	1.06	0.98	0.91	0.85	0.79	0.74	0.70	0.65	0.60	0.56	0.53
$b_B \leq 125$ [mm]	125	125	125	125	125	125	125	125	125	125	125	121	117	112	108	105	101	98	94	90	87	83	80

Four-span element, allowable wind pressure load											allow. w_p [kN/m ²]													
Span L[m]	3.50	3.75	4.00	4.25	4.50	4.75	5.00	5.25	5.50	5.75	6.00	6.25	6.50	6.75	7.00	7.25	7.50	7.75	8.00	8.25	8.50	8.75	9.00	
$b_A = 40$ [mm]	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	
$W_{e,10}$	1.01	0.94	0.88	0.83	0.79	0.74	0.71	0.67	0.64	0.62	0.59	0.57	0.54	0.52	0.51	0.49	0.47	0.46	0.44	0.43	0.42	0.40	0.39	
$b_B = 60$ [mm]	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	
$b_A \leq 60$ [mm]	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	
$W_{e,10}$	1.35	1.26	1.18	1.11	1.05	0.99	0.94	0.90	0.86	0.82	0.79	0.75	0.73	0.70	0.67	0.65	0.63	0.61	0.59	0.57	0.55	0.54	0.51	
$b_B \leq 80$ [mm]	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	78	
$b_A \leq 80$ [mm]	62	63	62	63	63	62	63	63	62	62	62	61	58	56	54	52	51	49	46	44	42	40	40	
$W_{e,10}$	2.10	1.97	1.84	1.73	1.64	1.55	1.47	1.40	1.34	1.28	1.23	1.14	1.06	0.98	0.91	0.85	0.79	0.74	0.68	0.63	0.59	0.54	0.51	
$b_B \leq 125$ [mm]	125	125	125	125	125	125	125	125	125	125	125	121	117	112	108	105	101	97	92	88	84	81	78	

Load tables for wind suction



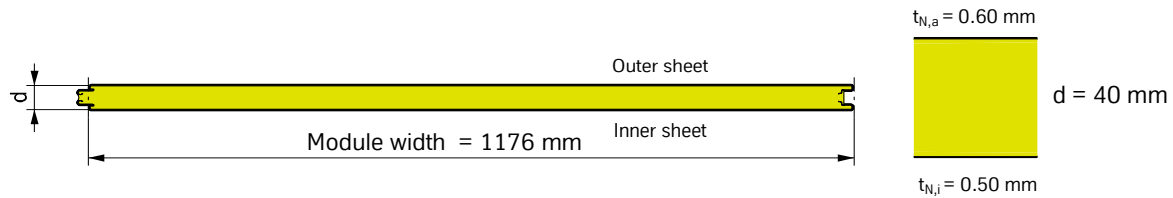
Single-span element, allowable wind suction load											allow. w_s [kN/m ²]													
Span L[m]		3.50	3.75	4.00	4.25	4.50	4.75	5.00	5.25	5.50	5.75	6.00	6.25	6.50	6.75	7.00	7.25	7.50	7.75	8.00	8.25	8.50	8.75	9.00
We,10 $n_A = 3$ We,1 $n_A = 6$ We,1	Colour group -III	2.92	2.72	2.55	2.40	2.21	1.98	1.79	1.62	1.48	1.35	1.24	1.15	1.06	0.98	0.91	0.85	0.79	0.74	0.70	0.66	0.62	0.58	0.55
		3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
		1.46	1.36	1.28	1.20	1.13	1.07	1.02	0.97	0.93	0.89	0.85	0.82	0.78	0.76	0.73	0.70	0.68	0.66	0.64	0.62	0.60	0.58	0.57
		6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6
		2.92	2.72	2.55	2.40	2.27	2.15	2.04	1.94	1.86	1.77	1.70	1.63	1.57	1.51	1.46	1.41	1.36	1.32	1.28	1.24	1.20	1.17	1.13

Two-span element, allowable wind suction load allow. w_s [kN/m ²]																									
Span L[m]		3.50	3.75	4.00	4.25	4.50	4.75	5.00	5.25	5.50	5.75	6.00	6.25	6.50	6.75	7.00	7.25	7.50	7.75	8.00	8.25	8.50	8.75	9.00	
We,10	Colour group I	1.32	1.22	1.14	1.06	1.00	0.94	0.89	0.84	0.80	0.76	0.73	0.69	0.63	0.54	0.51	0.49	0.48	0.46	0.44	0.41	0.37	0.33	0.31	
$n_A \leq 4$		4	4	4	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	
We,1 $n_B \leq 6$		1.32	1.22	1.14	1.06	1.00	0.94	0.89	0.84	0.80	0.76	0.73	0.69	0.67	0.64	0.61	0.49	0.48	0.46	0.44	0.43	0.42	0.40	0.39	
		6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	5	5	5	5	5	5	5	5	5
We,10	Colour group II	1.32	1.22	1.14	1.06	1.00	0.94	0.89	0.70	0.67	0.63	0.60	0.52	0.44	0.43	0.41	0.39	0.38	0.33	0.29	0.26	0.25	0.24	0.23	
$n_A \leq 4$		4	4	4	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	
We,1		1.32	1.22	1.14	1.06	1.00	0.94	0.89	0.84	0.67	0.63	0.61	0.58	0.55	0.43	0.41	0.39	0.38	0.37	0.35	0.34	0.33	0.24	0.23	
$n_B \leq 6$		6	6	6	6	6	6	6	6	5	5	5	5	5	5	4	4	4	4	4	4	4	3	3	
We,10	Colour group III	1.32	1.22	1.09	0.89	0.83	0.55	0.49	0.47	0.39															
$n_A \leq 4$		4	4	3	3	3	3	3	3	3															
We,1		1.32	1.22	1.13	0.89	0.83	0.78	0.49	0.47	0.46															
$n_B \leq 6$		6	6	6	5	5	5	4	4	4															

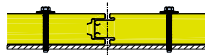
Three-span element, allowable wind suction load											allow. w_s [kN/m ²]													
Span L[m]		3.50	3.75	4.00	4.25	4.50	4.75	5.00	5.25	5.50	5.75	6.00	6.25	6.50	6.75	7.00	7.25	7.50	7.75	8.00	8.25	8.50	8.75	9.00
We,10	Colour group I	1.37	1.27	1.19	1.12	1.05	1.00	0.95	0.90	0.86	0.82	0.78	0.75	0.67	0.60	0.56	0.54	0.52	0.50	0.49	0.47	0.46	0.44	0.43
$n_A \leq 4$		4	4	4	4	4	4	4	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
We,1		1.37	1.27	1.19	1.12	1.05	1.00	0.95	0.90	0.86	0.82	0.78	0.75	0.72	0.69	0.67	0.65	0.52	0.50	0.49	0.47	0.46	0.44	0.43
$n_B \leq 6$		6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	5	5	5	5	5	5	5
We,10	Colour group II	1.37	1.27	1.19	1.12	1.05	0.83	0.79	0.75	0.71	0.68	0.63	0.54	0.48	0.46	0.45	0.43	0.42	0.40	0.39	0.38	0.36	0.33	0.30
$n_A \leq 4$		4	4	4	4	4	4	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
We,1		1.37	1.27	1.19	1.12	1.05	1.00	0.79	0.75	0.71	0.68	0.65	0.63	0.60	0.58	0.45	0.43	0.42	0.40	0.39	0.38	0.37	0.36	0.35
$n_B \leq 6$		6	6	6	6	6	6	5	5	5	5	5	5	5	5	4	4	4	4	4	4	4	4	4
We,10	Colour group III	1.14	1.06	0.80	0.75	0.70	0.66	0.49	0.45	0.43	0.34													
$n_A \leq 4$		3	3	3	3	3	3	3	3	3	3													
We,1		1.14	1.06	0.99	0.75	0.70	0.66	0.63	0.60	0.43	0.41													
$n_B \leq 6$		5	5	5	4	4	4	4	4	4	3	3												

Four-span element, allowable wind suction load allow. w_s [kN/m ²]																								
Span L[m]		3.50	3.75	4.00	4.25	4.50	4.75	5.00	5.25	5.50	5.75	6.00	6.25	6.50	6.75	7.00	7.25	7.50	7.75	8.00	8.25	8.50	8.75	9.00
We,10	Colour group I	1.38	1.28	1.20	1.13	1.06	1.00	0.95	0.90	0.86	0.82	0.78	0.75	0.67	0.60	0.56	0.54	0.52	0.50	0.48	0.47	0.45	0.44	0.41
$n_A \leq 4$		4	4	4	4	4	4	4	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
We,1		1.38	1.28	1.20	1.13	1.06	1.00	0.95	0.90	0.86	0.82	0.78	0.75	0.72	0.69	0.67	0.64	0.52	0.50	0.48	0.47	0.45	0.44	0.43
$n_B \leq 6$		6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	5	5	5	5	5	5	5
We,10	Colour group II	1.38	1.07	1.00	0.94	0.88	0.83	0.79	0.75	0.72	0.66	0.61	0.54	0.48	0.46	0.44	0.43	0.41	0.40	0.39	0.37	0.34	0.31	0.29
$n_A \leq 4$		4	4	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
We,1		1.38	1.28	1.00	0.94	0.88	0.83	0.79	0.75	0.72	0.68	0.65	0.63	0.60	0.58	0.44	0.43	0.41	0.40	0.39	0.37	0.36	0.35	0.34
$n_B \leq 6$		6	6	5	5	5	5	5	5	5	5	5	5	5	5	4	4	4	4	4	4	4	4	4
We,10	Colour group III	0.92	0.78	0.60	0.56	0.53	0.48																	
$n_A \leq 4$		3	3	3	3	3	3																	
We,1		0.92	0.86	0.80	0.75	0.53	0.50																	
$n_B \leq 6$		4	4	4	4	3	3																	

Load tables for preliminary design of buildings with normal internal temperatures (not valid for cold stores or chillrooms)



Type of fixing



End support:

screws with washer $d \geq 16 \text{ mm}$
characteristic tensile force "pull through the sheet" $F_{z,k}(b_A) = 2.3 \text{ kN/screw}$

Intermediate support:

screws with washer $d \geq 16 \text{ mm}$
characteristic tensile force "pull through the sheet" $F_{z,k}(b_B) = 2.3 \text{ kN/screw}$

The verification "pull out of the substructure" must be calculated separately!

Line b_A : Minimum end support width b_A in [mm] for the relevant wind-pressure load.

Line b_B : Minimum intermediate support width b_B in [mm] for the relevant wind-pressure load.

Line n_A : Number of screws per module width at the end support b_A for the relevant wind-suction load.

Line n_B : Number of screws per module width at the intermediate support b_B for the relevant wind-suction load.

Line $W_{e,10}$: Allowable wind pressure/suction load in $[\text{kN/m}^2]$ in consideration of the panel design with a deflection restriction $\max f \leq L/100$.

Line $W_{e,1}$: Allowable wind suction load in $[\text{kN/m}^2]$ in consideration of the fastener design.

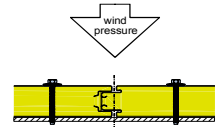
Colour group I, II, III: The following temperature differences between the cover sheets have been taken into consideration for secondary loads in the cover sheets, in accordance with the general approval issued by the building inspection authorities:

Season	Colour Group	t_{indoor}	$t_{\text{outdoor}} - t_{\text{indoor}}$
summer	I / II / III	25°C	+30 / +40 / +55 °C
winter	all	20°C	-40 °C

The tables do not replace the structural analysis required for execution of the constructional work. The allowable wind loads are specified in $[\text{kN/m}^2]$ and have been determined in accordance with the provisions of official approval no. Z-10.4-428 issued by the German building inspection authorities. The load tables contain both load and material safety factors.

Please note the maximum length supplied, especially in the case of multi-span elements.

Load tables for wind pressure



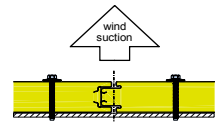
Single-span element, allowable wind pressure load allow. w_p [kN/m ²]																							
Span L[m]	1.50	1.75	2.00	2.25	2.50	2.75	3.00	3.25	3.50	3.75	4.00	4.25	4.50	4.75	5.00	5.25	5.50	5.75	6.00	6.25	6.50	6.75	7.00
$b_A = 40$ [mm]	40	40	40	40	40	40	40	40	40	40	40	40											
$W_{e,10}$	2.81	2.40	2.10	1.70	1.30	1.00	0.78	0.61	0.47	0.37	0.29	0.23											
$b_A \leq 60$ [mm]	40	40	40	40	40	40	40	40	40	40	40	40											
$W_{e,10}$	2.81	2.40	2.10	1.70	1.30	1.00	0.78	0.61	0.47	0.37	0.29	0.23											

Two-span element, allowable wind pressure load allow. w_p [kN/m ²]																							
Span L[m]	1.50	1.75	2.00	2.25	2.50	2.75	3.00	3.25	3.50	3.75	4.00	4.25	4.50	4.75	5.00	5.25	5.50	5.75	6.00	6.25	6.50	6.75	7.00
$b_A = 40$ [mm]	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40					
$W_{e,10}$	2.33	1.99	1.74	1.55	1.40	1.18	0.93	0.75	0.62	0.52	0.44	0.38	0.33	0.29	0.26	0.23	0.21	0.19					
$b_B = 60$ [mm]	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60					
$b_A \leq 60$ [mm]	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40					
$W_{e,10}$	2.80	2.40	2.10	1.87	1.55	1.18	0.93	0.75	0.62	0.52	0.44	0.38	0.33	0.29	0.26	0.23	0.21	0.19					
$b_B \leq 80$ [mm]	71	71	71	71	66	60	60	60	60	60	60	60	60	60	60	60	60	60					

Three-span element, allowable wind pressure load allow. w_p [kN/m ²]																							
Span L[m]	1.50	1.75	2.00	2.25	2.50	2.75	3.00	3.25	3.50	3.75	4.00	4.25	4.50	4.75	5.00	5.25	5.50	5.75	6.00	6.25	6.50	6.75	7.00
$b_A = 40$ [mm]	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40
$W_{e,10}$	2.36	2.02	1.77	1.57	1.41	1.29	1.18	1.01	0.86	0.74	0.64	0.56	0.50	0.44	0.40	0.36	0.33	0.30	0.27	0.25	0.23	0.20	0.18
$b_B = 60$ [mm]	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60
$b_A \leq 60$ [mm]	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40
$W_{e,10}$	2.80	2.40	2.10	1.87	1.68	1.42	1.19	1.01	0.86	0.74	0.64	0.56	0.50	0.44	0.40	0.36	0.33	0.30	0.27	0.25	0.23	0.20	0.18
$b_B \leq 80$ [mm]	71	71	71	71	71	66	61	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60

Four-span element, allowable wind pressure load										allow. w_p [kN/m ²]														
Span L[m]	1.50	1.75	2.00	2.25	2.50	2.75	3.00	3.25	3.50	3.75	4.00	4.25	4.50	4.75	5.00	5.25	5.50	5.75	6.00	6.25	6.50	6.75	7.00	
$b_A = 40$ [mm]	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	
$W_{e,10}$	2.36	2.02	1.77	1.57	1.42	1.29	1.17	0.96	0.81	0.69	0.60	0.52	0.46	0.41	0.36	0.33	0.29	0.27	0.24	0.22	0.21	0.19	0.18	
$b_B = 60$ [mm]	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	
$b_A \leq 60$ [mm]	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	
$W_{e,10}$	2.80	2.40	2.10	1.87	1.68	1.42	1.17	0.96	0.81	0.69	0.60	0.52	0.46	0.41	0.36	0.33	0.29	0.27	0.24	0.22	0.21	0.19	0.18	
$b_B \leq 80$ [mm]	71	71	71	71	71	66	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	

Load tables for wind suction



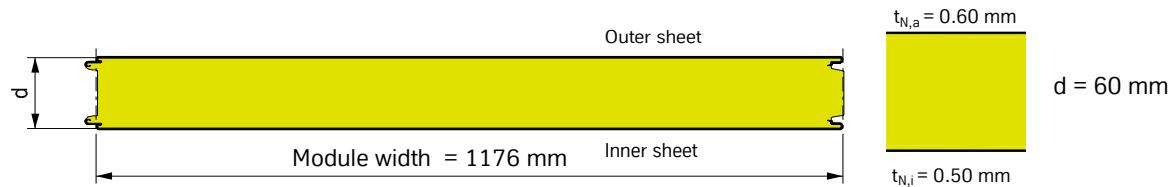
Single-span element, allowable wind suction load											allow. w_s [kN/m ²]													
Span L[m]		1.50	1.75	2.00	2.25	2.50	2.75	3.00	3.25	3.50	3.75	4.00	4.25	4.50	4.75	5.00	5.25	5.50	5.75	6.00	6.25	6.50	6.75	7.00
We,10	Colour group I-III	2.80	2.40	2.10	1.87	1.61	1.23	0.90	0.65	0.46	0.32	0.21	0.13											
$n_A = 3$		3	3	3	3	3	3	3	3	3	3	3	3											
We,1		3.91	3.35	2.93	2.61	2.35	2.13	1.96	1.81	1.68	1.56	1.47	1.38											
$n_A = 6$		6	6	6	6	6	6	6	6	6	6	6	6											
We,1		7.82	6.71	5.87	5.22	4.69	4.27	3.91	3.61	3.35	3.13	2.93	2.76											

Two-span element, allowable wind suction load allow. w_s [kN/m ²]																								
Span L[m]		1.50	1.75	2.00	2.25	2.50	2.75	3.00	3.25	3.50	3.75	4.00	4.25	4.50	4.75	5.00	5.25	5.50	5.75	6.00	6.25	6.50	6.75	7.00
We,10	Colour group I	2.80	2.40	2.10	1.83	1.61	1.22	1.08	0.95	0.82	0.70	0.60	0.56	0.50	0.44	0.39	0.35	0.31	0.28					
$n_A \leq 3$		3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3					
We,1 $n_B \leq 6$		3.42	2.88	2.49	1.83	1.63	1.42	1.08	0.99	0.92	0.85	0.80	0.56	0.53	0.50	0.48	0.45	0.43	0.41					
		6	6	6	5	5	5	4	4	4	4	4	3	3	3	3	3	3	3					
We,10	Colour group II	2.81	2.40	2.08	1.46	1.31	1.02	0.81	0.71	0.57	0.47	0.39	0.33	0.28	0.24	0.21	0.19							
$n_A \leq 3$		3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3							
We,1 $n_B \leq 6$		3.42	2.88	2.08	1.83	1.31	1.18	1.08	0.74	0.69	0.64	0.60	0.56	0.53	0.50	0.48	0.45							
		6	6	5	5	4	4	4	3	3	3	3	3	3	3	3	3							
We,10	Colour group III	2.81	1.92	1.35	0.97	0.55	0.30																	
$n_A \leq 3$		3	3	3	3	3	3																	
We,1 $n_B \leq 6$		2.85	1.92	1.66	1.10	0.98	0.88																	
		5	4	4	3	3	3																	

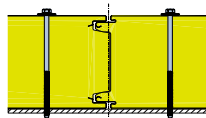
Three-span element, allowable wind suction load											allow. w_s [kN/m ²]													
Span L[m]		1.50	1.75	2.00	2.25	2.50	2.75	3.00	3.25	3.50	3.75	4.00	4.25	4.50	4.75	5.00	5.25	5.50	5.75	6.00	6.25	6.50	6.75	7.00
We,10	Colour group I	2.80	2.40	2.10	1.87	1.61	1.33	1.11	0.95	0.82	0.71	0.63	0.56	0.50	0.44	0.40	0.36	0.33	0.30	0.28	0.26	0.24	0.22	0.20
$n_A \leq 3$		3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
We,1		3.63	3.10	2.70	2.39	1.79	1.63	1.49	1.37	1.28	1.19	1.12	1.05	0.99	0.94	0.89	0.85	0.81	0.77	0.74	0.71	0.68	0.66	0.64
$n_B \leq 6$		6	6	6	6	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
We,10	Colour group II	2.80	2.40	2.10	1.63	1.43	1.30	1.10	0.91	0.77	0.71	0.63	0.56	0.50	0.44	0.40	0.36	0.32	0.29	0.27	0.25	0.23	0.21	0.19
$n_A \leq 3$		3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
We,1		3.63	3.10	2.25	2.00	1.43	1.30	1.19	1.10	1.02	0.71	0.67	0.63	0.59	0.56	0.53	0.51	0.49	0.46	0.45	0.43	0.41	0.40	0.38
$n_B \leq 6$		6	6	5	5	4	4	4	4	4	4	3	3	3	3	3	3	3	3	3	3	3	3	3
We,10	Colour group III	2.53	2.07	1.45	1.20	0.91	0.67	0.52	0.41	0.33	0.27	0.23	0.20	0.17										
$n_A \leq 3$		3	3	3	3	3	3	3	3	3	3	3	3	3										
We,1		3.02	2.07	1.80	1.20	1.08	0.98	0.89	0.82	0.76	0.71	0.67	0.63	0.59										
$n_B \leq 6$		5	4	4	3	3	3	3	3	3	3	3	3	3										

Four-span element, allowable wind suction load allow. w_s [kN/m ²]																								
Span L[m]		1.50	1.75	2.00	2.25	2.50	2.75	3.00	3.25	3.50	3.75	4.00	4.25	4.50	4.75	5.00	5.25	5.50	5.75	6.00	6.25	6.50	6.75	7.00
We,10	Colour group I	2.80	2.40	2.10	1.87	1.61	1.33	1.11	0.95	0.82	0.71	0.63	0.56	0.50	0.44	0.40	0.36	0.33	0.30	0.28	0.26	0.24	0.22	0.20
$n_A \leq 3$		3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	
We,1		3.64	3.10	2.69	2.38	1.78	1.61	1.47	1.35	1.25	1.16	1.09	1.02	0.96	0.73	0.69	0.66	0.63	0.60	0.58	0.55	0.53	0.51	0.49
$n_B \leq 6$		6	6	6	6	5	5	5	5	5	5	5	5	5	5	4	4	4	4	4	4	4	4	4
We,10	Colour group II	2.80	2.40	2.10	1.61	1.42	1.29	1.05	0.86	0.75	0.70	0.59	0.52	0.45	0.40	0.35	0.31	0.28	0.26	0.23	0.21	0.20	0.18	0.17
$n_A \leq 3$		3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	
We,1		3.64	2.58	2.25	1.98	1.42	1.29	1.17	1.08	1.00	0.70	0.65	0.61	0.58	0.55	0.52	0.49	0.47	0.45	0.43	0.41	0.40	0.38	0.37
$n_B \leq 6$		6	5	5	5	4	4	4	4	4	3	3	3	3	3	3	3	3	3	3	3	3	3	3
We,10	Colour group III	2.43	2.04	1.45	1.19	0.88	0.63	0.47	0.36	0.28	0.22	0.18												
$n_A \leq 3$		3	3	3	3	3	3	3	3	3	3	3												
We,1		2.43	2.07	1.80	1.19	1.07	0.96	0.88	0.81	0.75	0.70	0.65												
$n_B \leq 6$		4	4	4	3	3	3	3	3	3	3	3												

Load tables for preliminary design of buildings with normal internal temperatures (not valid for cold stores or chillrooms)



Type of fixing



End support:

screws with washer $d \geq 16$ mm
characteristic tensile force "pull through the sheet" $F_{z,k}(b_A) = 2.3$ kN/screw

Intermediate support:

screws with washer $d \geq 16$ mm
characteristic tensile force "pull through the sheet" $F_{z,k}(b_B) = 2.3$ kN/screw

The verification "pull out of the substructure" must be calculated separately!

Line b_A : Minimum end support width b_A in [mm] for the relevant wind-pressure load.

Line b_B : Minimum intermediate support width b_B in [mm] for the relevant wind-pressure load.

Line n_A : Number of screws per module width at the end support b_A for the relevant wind-suction load.

Line n_B : Number of screws per module width at the intermediate support b_B for the relevant wind-suction load.

Line $W_{e,10}$: Allowable wind pressure/suction load in [kN/m²] in consideration of the panel design with a deflection restriction $\max f \leq L/100$.

Line $W_{e,1}$: Allowable wind suction load in [kN/m²] in consideration of the fastener design.

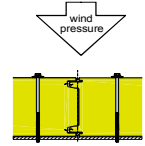
Colour group I, II, III: The following temperature differences between the cover sheets have been taken into consideration for secondary loads in the cover sheets, in accordance with the general approval issued by the building inspection authorities:

Season	Colour Group	t_{indoor}	$t_{\text{outdoor}} - t_{\text{indoor}}$
summer	I / II / III	25°C	+30 / +40 / +55 °C
winter	all	20°C	-40 °C

The tables do not replace the structural analysis required for execution of the constructional work. The allowable wind loads are specified in [kN/m²] and have been determined in accordance with the provisions of official approval no. Z-10.4-428 issued by the German building inspection authorities. The load tables contain both load and material safety factors.

Please note the maximum length supplied, especially in the case of multi-span elements.

Load tables for wind pressure



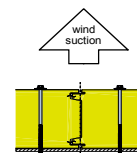
Single-span element, allowable wind pressure load allow. w_p [kN/m ²]																							
Span L[m]	1.50	1.75	2.00	2.25	2.50	2.75	3.00	3.25	3.50	3.75	4.00	4.25	4.50	4.75	5.00	5.25	5.50	5.75	6.00	6.25	6.50	6.75	7.00
$b_A = 40$ [mm]	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40				
$W_{e,10}$	3.14	2.70	2.36	2.09	1.89	1.72	1.57	1.45	1.23	1.02	0.85	0.71	0.59	0.50	0.42	0.35	0.30	0.25	0.21				
$b_A \leq 60$ [mm]	50	50	50	49	49	49	45	41	40	40	40	40	40	40	40	40	40	40	40				
$W_{e,10}$	3.89	3.34	2.92	2.59	2.33	2.12	1.79	1.49	1.23	1.02	0.85	0.71	0.59	0.50	0.42	0.35	0.30	0.25	0.21				

Two-span element, allowable wind pressure load allow. w_p [kN/m ²]																							
Span L[m]	1.50	1.75	2.00	2.25	2.50	2.75	3.00	3.25	3.50	3.75	4.00	4.25	4.50	4.75	5.00	5.25	5.50	5.75	6.00	6.25	6.50	6.75	7.00
$b_A = 40$ [mm]	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40
$W_{e,10}$	2.25	1.90	1.65	1.46	1.32	1.21	1.11	1.04	0.97	0.89	0.75	0.64	0.55	0.48	0.42	0.37	0.33	0.30	0.27	0.25	0.22	0.21	0.19
$b_B = 60$ [mm]	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60
$b_A \leq 60$ [mm]	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40
$W_{e,10}$	3.14	2.70	2.36	2.10	1.89	1.72	1.57	1.33	1.08	0.89	0.75	0.64	0.55	0.48	0.42	0.37	0.33	0.30	0.27	0.25	0.22	0.21	0.19
$b_B \leq 80$ [mm]	80	80	80	80	80	80	80	73	65	60	60	60	60	60	60	60	60	60	60	60	60	60	60
$b_A \leq 60$ [mm]	50	50	50	50	50	50	43	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40
$W_{e,10}$	3.89	3.34	2.92	2.59	2.34	2.12	1.68	1.33	1.08	0.89	0.75	0.64	0.55	0.48	0.42	0.37	0.33	0.30	0.27	0.25	0.22	0.21	0.19
$b_B \leq 100$ [mm]	99	99	99	99	99	99	85	73	65	60	60	60	60	60	60	60	60	60	60	60	60	60	60

Three-span element, allowable wind pressure load allow. w_p [kN/m ²]																							
Span L[m]	1.50	1.75	2.00	2.25	2.50	2.75	3.00	3.25	3.50	3.75	4.00	4.25	4.50	4.75	5.00	5.25	5.50	5.75	6.00	6.25	6.50	6.75	7.00
$b_A = 40$ [mm]	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40
$W_{e,10}$	2.36	2.02	1.77	1.57	1.41	1.29	1.18	1.09	1.01	0.94	0.88	0.83	0.77	0.68	0.61	0.55	0.50	0.45	0.41	0.38	0.35	0.32	0.30
$b_B = 60$ [mm]	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60
$b_A \leq 60$ [mm]	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40
$W_{e,10}$	3.14	2.70	2.36	2.10	1.89	1.72	1.57	1.45	1.31	1.14	1.00	0.88	0.77	0.68	0.61	0.55	0.50	0.45	0.41	0.38	0.35	0.32	0.30
$b_B \leq 80$ [mm]	80	80	80	80	80	80	80	80	78	73	68	63	60	60	60	60	60	60	60	60	60	60	60
$b_A \leq 60$ [mm]	50	50	50	50	50	49	45	42	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40
$W_{e,10}$	3.89	3.34	2.92	2.59	2.34	2.12	1.79	1.52	1.31	1.14	1.00	0.88	0.77	0.68	0.61	0.55	0.50	0.45	0.41	0.38	0.35	0.32	0.30
$b_B \leq 100$ [mm]	99	99	99	99	99	99	91	84	78	73	68	63	60	60	60	60	60	60	60	60	60	60	60

Four-span element, allowable wind pressure load										allow. w_p [kN/m ²]													
Span L[m]	1.50	1.75	2.00	2.25	2.50	2.75	3.00	3.25	3.50	3.75	4.00	4.25	4.50	4.75	5.00	5.25	5.50	5.75	6.00	6.25	6.50	6.75	7.00
$b_A = 40$ [mm]	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40
$W_{e,10}$	2.36	2.02	1.77	1.57	1.41	1.29	1.18	1.09	1.01	0.94	0.88	0.83	0.73	0.64	0.57	0.51	0.46	0.42	0.38	0.35	0.32	0.29	0.27
$b_B = 60$ [mm]	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60
$b_A \leq 60$ [mm]	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40
$W_{e,10}$	3.14	2.70	2.36	2.10	1.89	1.72	1.57	1.45	1.31	1.12	0.96	0.83	0.73	0.64	0.57	0.51	0.46	0.42	0.38	0.35	0.32	0.29	0.27
$b_B \leq 80$ [mm]	80	80	80	80	80	80	80	80	78	71	65	60	60	60	60	60	60	60	60	60	60	60	60
$b_A \leq 60$ [mm]	50	50	50	50	50	50	45	42	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40
$W_{e,10}$	3.89	3.33	2.92	2.59	2.34	2.12	1.79	1.52	1.31	1.12	0.96	0.83	0.73	0.64	0.57	0.51	0.46	0.42	0.38	0.35	0.32	0.29	0.27
$b_B \leq 100$ [mm]	99	99	99	99	99	99	91	84	78	71	65	60	60	60	60	60	60	60	60	60	60	60	60

Load tables for wind suction



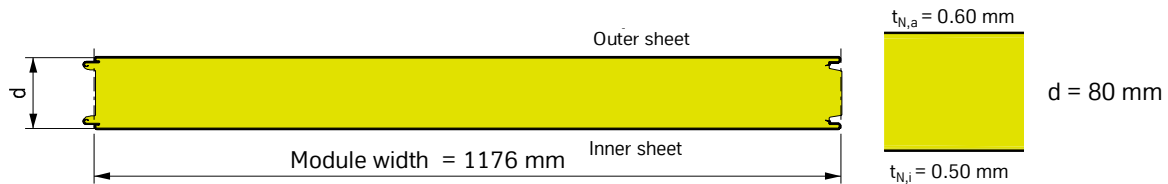
Single-span element, allowable wind suction load allow. w_s [kN/m ²]																								
Span L[m]		1.50	1.75	2.00	2.25	2.50	2.75	3.00	3.25	3.50	3.75	4.00	4.25	4.50	4.75	5.00	5.25	5.50	5.75	6.00	6.25	6.50	6.75	7.00
We,10	Colour group I-III	3.89	3.34	2.92	2.59	2.34	1.98	1.67	1.42	1.22	1.07	0.94	0.83	0.68	0.55	0.44	0.34	0.27	0.21	0.15				
$n_A = 3$		3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3				
We,1		3.91	3.35	2.93	2.61	2.35	2.13	1.96	1.81	1.68	1.56	1.47	1.38	1.30	1.24	1.17	1.12	1.07	1.02	0.98				
$n_A = 6$		6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6			
We,1		7.82	6.71	5.87	5.22	4.69	4.27	3.91	3.61	3.35	3.13	2.93	2.76	2.61	2.47	2.35	2.24	2.13	2.04	1.96				

[illegible]

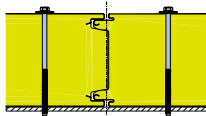
Three-span element, allowable wind suction load											allow. w_s [kN/m ²]														
Span L[m]		1.50	1.75	2.00	2.25	2.50	2.75	3.00	3.25	3.50	3.75	4.00	4.25	4.50	4.75	5.00	5.25	5.50	5.75	6.00	6.25	6.50	6.75	7.00	
We,10	Colour group I	3.66	3.12	2.72	2.41	2.16	1.86	1.50	1.38	1.22	1.07	0.94	0.83	0.74	0.67	0.60	0.54	0.50	0.45	0.42	0.38	0.36	0.33	0.31	
$n_A \leq 3$		3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	
We,1		3.66	3.12	2.72	2.41	2.16	1.96	1.80	1.38	1.28	1.19	1.12	1.05	0.99	0.94	0.89	0.85	0.81	0.77	0.74	0.71	0.69	0.66	0.64	
$n_B \leq 6$		6	6	6	6	6	6	6	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
We,10	Colour group II	3.66	3.12	2.72	2.01	1.80	1.62	1.26	1.10	1.02	0.95	0.88	0.76	0.66	0.59	0.54	0.51	0.49	0.45	0.40	0.37	0.34	0.31	0.29	
$n_A \leq 3$		3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	
We,1		3.66	3.12	2.72	2.41	1.80	1.63	1.50	1.38	1.02	0.95	0.89	0.84	0.79	0.75	0.71	0.68	0.49	0.46	0.45	0.43	0.41	0.40	0.38	
$n_B \leq 6$		6	6	6	6	5	5	5	5	4	4	4	4	4	4	4	4	4	3	3	3	3	3	3	3
We,10	Colour group III	3.60	2.60	1.81	1.61	1.34	0.98	0.90	0.72	0.57	0.46	0.38	0.32	0.27	0.23	0.20	0.18								
$n_A \leq 3$		3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3								
We,1		3.66	2.60	2.26	1.61	1.44	1.31	0.90	0.83	0.77	0.72	0.67	0.63	0.60	0.56	0.54	0.51								
$n_B \leq 6$		6	5	5	4	4	4	3	3	3	3	3	3	3	3	3	3								

[illegible]

Load tables for preliminary design of buildings with normal internal temperatures
(not valid for cold stores or chillrooms)



Type of fixing



End support:

screws with washer $d \geq 16$ mm
characteristic tensile force "pull through the sheet" $F_{z,k}(b_A) = 2.3$ kN/screw

Intermediate support:

screws with washer $d \geq 16$ mm
characteristic tensile force "pull through the sheet" $F_{z,k}(b_B) = 2.3$ kN/screw

The verification "pull out of the substructure" must be calculated separately!

Line b_A : Minimum end support width b_A in [mm] for the relevant wind-pressure load.

Line b_B : Minimum intermediate support width b_B in [mm] for the relevant wind-pressure load.

Line n_A : Number of screws per module width at the end support b_A for the relevant wind-suction load.

Line n_B : Number of screws per module width at the intermediate support b_B for the relevant wind-suction load.

Line $W_{e,10}$: Allowable wind pressure/suction load in [kN/m²] in consideration of the panel design with a deflection restriction $\max f \leq L/100$.

Line $W_{e,1}$: Allowable wind suction load in [kN/m²] in consideration of the fastener design.

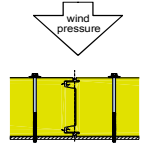
Colour group I, II, III: The following temperature differences between the cover sheets have been taken into consideration for secondary loads in the cover sheets, in accordance with the general approval issued by the building inspection authorities:

Season	Colour Group	t_{indoor}	$t_{\text{outdoor}} - t_{\text{indoor}}$
summer	I / II / III	25°C	+30 / +40 / +55 °C
winter	all	20°C	-40 °C

The tables do not replace the structural analysis required for execution of the constructional work. The allowable wind loads are specified in [kN/m²] and have been determined in accordance with the provisions of official approval no. Z-10.4-428 issued by the German building inspection authorities. The load tables contain both load and material safety factors.

Please note the maximum length supplied, especially in the case of multi-span elements.

Load tables for wind pressure



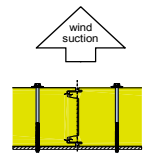
Single-span element, allowable wind pressure load allow. w_p [kN/m ²]																							
Span L[m]	1.50	1.75	2.00	2.25	2.50	2.75	3.00	3.25	3.50	3.75	4.00	4.25	4.50	4.75	5.00	5.25	5.50	5.75	6.00	6.25	6.50	6.75	7.00
$b_A = 40$ [mm]	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40
$W_{e,10}$	3.14	2.70	2.36	2.09	1.89	1.71	1.57	1.45	1.35	1.26	1.18	1.11	1.05	0.95	0.84	0.72	0.63	0.55	0.48	0.42	0.36	0.32	0.28
$b_A \leq 60$ [mm]	60	60	60	60	60	60	60	56	52	48	45	43	40	40	40	40	40	40	40	40	40	40	40
$W_{e,10}$	4.72	4.04	3.54	3.15	2.83	2.57	2.37	2.02	1.74	1.52	1.33	1.18	1.05	0.95	0.84	0.72	0.63	0.55	0.48	0.42	0.36	0.32	0.28
$b_A \leq 80$ [mm]	66	66	66	66	66	66	60	56	52	48	45	43	40	40	40	40	40	40	40	40	40	40	40
$W_{e,10}$	5.21	4.47	3.91	3.48	3.12	2.82	2.37	2.02	1.74	1.52	1.33	1.18	1.05	0.95	0.84	0.72	0.63	0.55	0.48	0.42	0.36	0.32	0.28

Two-span element, allowable wind pressure load											allow. w_p [kN/m ²]													
Span L[m]	1.50	1.75	2.00	2.25	2.50	2.75	3.00	3.25	3.50	3.75	4.00	4.25	4.50	4.75	5.00	5.25	5.50	5.75	6.00	6.25	6.50	6.75	7.00	
$b_A = 40$ [mm]	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	
$W_{e,10}$	2.22	1.85	1.60	1.40	1.26	1.15	1.06	0.98	0.92	0.86	0.82	0.77	0.74	0.70	0.61	0.54	0.48	0.43	0.38	0.35	0.31	0.29	0.26	
$b_B = 60$ [mm]	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	
$b_A \leq 60$ [mm]	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	
$W_{e,10}$	3.15	2.70	2.35	2.07	1.86	1.68	1.54	1.43	1.33	1.25	1.12	0.95	0.81	0.70	0.61	0.54	0.48	0.43	0.38	0.35	0.31	0.29	0.26	
$b_B \leq 80$ [mm]	80	80	80	80	80	80	80	80	80	80	77	70	65	60	60	60	60	60	60	60	60	60	60	
$b_A \leq 80$ [mm]	62	63	62	62	63	62	60	56	49	43	40	40	40	40	40	40	40	40	40	40	40	40	40	
$W_{e,10}$	4.91	4.22	3.68	3.27	2.95	2.68	2.37	2.02	1.65	1.35	1.12	0.95	0.81	0.70	0.61	0.54	0.48	0.43	0.38	0.35	0.31	0.29	0.26	
$b_B \leq 125$ [mm]	125	125	125	125	125	125	121	111	98	86	77	70	65	60	60	60	60	60	60	60	60	60	60	

Three-span element, allowable wind pressure load allow. w_p [kN/m ²]																							
Span L[m]	1.50	1.75	2.00	2.25	2.50	2.75	3.00	3.25	3.50	3.75	4.00	4.25	4.50	4.75	5.00	5.25	5.50	5.75	6.00	6.25	6.50	6.75	7.00
$b_A = 40$ [mm]	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40
$W_{e,10}$	2.36	2.02	1.77	1.57	1.41	1.29	1.18	1.09	1.01	0.94	0.88	0.83	0.79	0.74	0.71	0.67	0.64	0.61	0.56	0.51	0.47	0.43	0.40
$b_B = 60$ [mm]	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60
$b_A \leq 60$ [mm]	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40
$W_{e,10}$	3.14	2.69	2.36	2.10	1.89	1.72	1.57	1.45	1.35	1.26	1.18	1.11	1.05	0.93	0.83	0.75	0.67	0.61	0.56	0.51	0.47	0.43	0.40
$b_B \leq 80$ [mm]	80	80	80	80	80	80	80	80	80	80	80	80	80	75	71	66	63	60	60	60	60	60	60
$b_A \leq 80$ [mm]	62	62	63	62	62	62	60	56	52	48	45	43	40	40	40	40	40	40	40	40	40	40	40
$W_{e,10}$	4.91	4.21	3.69	3.28	2.95	2.68	2.37	2.02	1.74	1.52	1.33	1.18	1.05	0.93	0.83	0.75	0.67	0.61	0.56	0.51	0.47	0.43	0.40
$b_B \leq 125$ [mm]	125	125	125	125	125	125	121	111	103	96	90	85	80	75	71	66	63	60	60	60	60	60	60

Four-span element, allowable wind pressure load											allow. w_p [kN/m ²]													
Span L[m]	1.50	1.75	2.00	2.25	2.50	2.75	3.00	3.25	3.50	3.75	4.00	4.25	4.50	4.75	5.00	5.25	5.50	5.75	6.00	6.25	6.50	6.75	7.00	
$b_A = 40$ [mm]	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	
$W_{e,10}$	2.36	2.02	1.77	1.57	1.41	1.29	1.18	1.09	1.01	0.94	0.88	0.83	0.79	0.74	0.71	0.67	0.63	0.57	0.52	0.47	0.43	0.40	0.37	
$b_B = 60$ [mm]	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	
$b_A \leq 60$ [mm]	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	
$W_{e,10}$	3.14	2.70	2.36	2.10	1.89	1.72	1.57	1.45	1.35	1.26	1.18	1.11	1.02	0.89	0.79	0.71	0.63	0.57	0.52	0.47	0.43	0.40	0.37	
$b_B \leq 80$ [mm]	80	80	80	80	80	80	80	80	80	80	80	80	78	72	67	63	60	60	60	60	60	60	60	
$b_A \leq 80$ [mm]	63	63	62	63	62	62	60	56	52	48	45	42	40	40	40	40	40	40	40	40	40	40	40	
$W_{e,10}$	4.92	4.21	3.68	3.28	2.95	2.68	2.37	2.02	1.74	1.52	1.33	1.17	1.02	0.89	0.79	0.71	0.63	0.57	0.52	0.47	0.43	0.40	0.37	
$b_B \leq 125$ [mm]	125	125	125	125	125	125	121	111	103	96	90	84	78	72	67	63	60	60	60	60	60	60	60	

Load tables for wind suction



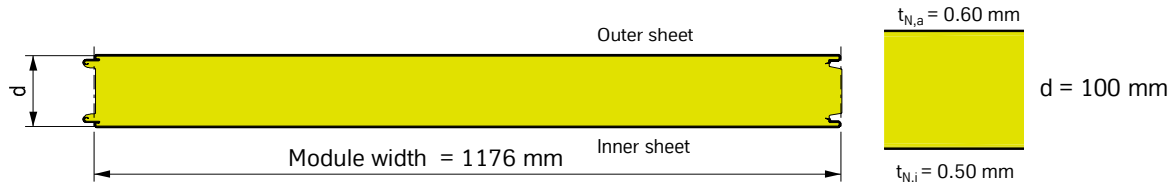
Single-span element, allowable wind suction load											allow. w_s [kN/m ²]																		
Span L[m]		1.50	1.75	2.00	2.25	2.50	2.75	3.00	3.25	3.50	3.75	4.00	4.25	4.50	4.75	5.00	5.25	5.50	5.75	6.00	6.25	6.50	6.75	7.00					
We,10	Colour group I-III	5.22	4.47	3.91	3.48	3.13	2.63	2.21	1.88	1.63	1.42	1.24	1.10	0.98	0.88	0.80	0.72	0.66	0.60	0.55	0.46	0.39	0.33	0.27					
		3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3					
We,1		3.91	3.35	2.93	2.61	2.35	2.13	1.96	1.81	1.68	1.56	1.47	1.38	1.30	1.24	1.17	1.12	1.07	1.02	0.98	0.94	0.90	0.87	0.84					
n _A = 6		6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6					
We,1		7.82	6.71	5.87	5.22	4.69	4.27	3.91	3.61	3.35	3.13	2.93	2.76	2.61	2.47	2.35	2.24	2.13	2.04	1.96	1.88	1.81	1.74	1.68					

Two-span element, allowable wind suction load allow. w_s [kN/m ²]																								
Span L[m]		1.50	1.75	2.00	2.25	2.50	2.75	3.00	3.25	3.50	3.75	4.00	4.25	4.50	4.75	5.00	5.25	5.50	5.75	6.00	6.25	6.50	6.75	7.00
We,10	Colour group I $n_A \leq 4$ We,1 $n_B \leq 6$	3.58	3.02	2.60	2.28	2.03	1.83	1.66	1.52	1.24	1.09	1.02	0.95	0.81	0.70	0.64	0.61	0.58	0.56	0.51	0.46	0.41	0.38	0.35
3		3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	
3.58		3.02	2.60	2.28	2.03	1.83	1.66	1.52	1.41	1.09	1.02	0.95	0.90	0.85	0.80	0.61	0.58	0.56	0.53	0.51	0.49	0.47	0.45	
		6	6	6	6	6	6	6	6	6	5	5	5	5	5	5	4	4	4	4	4	4	4	4
We,10	Colour group II $n_A \leq 4$ We,1 $n_B \leq 6$	3.58	3.02	2.60	2.28	2.03	1.70	1.39	1.27	1.00	0.87	0.81	0.76	0.64	0.53	0.48	0.46	0.41	0.36	0.32	0.29	0.26	0.23	0.21
3		3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	
3.58		3.02	2.60	2.28	2.03	1.83	1.39	1.27	1.10	0.87	0.81	0.76	0.72	0.68	0.64	0.46	0.44	0.42	0.40	0.38	0.37	0.35	0.34	
		6	6	6	6	6	6	5	5	5	4	4	4	4	4	4	3	3	3	3	3	3	3	3
We,10	Colour group III $n_A \leq 4$ We,1 $n_B \leq 6$	3.58	3.02	2.60	1.90	1.69	1.22	1.09	0.76	0.63	0.41	0.27												
3		3	3	3	3	3	3	3	3	3	3	3												
3.58		3.02	2.60	2.28	1.69	1.22	1.11	1.02	0.70	0.65	0.61													
		6	6	6	6	5	4	4	4	3	3	3												

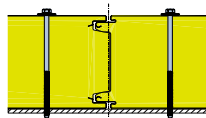
Three-span element, allowable wind suction load											allow. w_s [kN/m ²]														
Span L[m]		1.50	1.75	2.00	2.25	2.50	2.75	3.00	3.25	3.50	3.75	4.00	4.25	4.50	4.75	5.00	5.25	5.50	5.75	6.00	6.25	6.50	6.75	7.00	
We,10	Colour group I	3.69	3.14	2.74	2.42	2.17	1.97	1.80	1.66	1.44	1.21	1.12	1.05	0.98	0.88	0.80	0.72	0.66	0.60	0.55	0.51	0.47	0.44	0.41	
$n_A \leq 4$		4	4	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	
We,1		3.69	3.14	2.74	2.42	2.17	1.97	1.80	1.66	1.54	1.43	1.12	1.05	0.99	0.94	0.89	0.85	0.81	0.78	0.74	0.71	0.69	0.66	0.64	
$n_B \leq 6$		6	6	6	6	6	6	6	6	6	6	5	5	5	5	5	5	5	5	5	5	5	5	5	5
We,10	Colour group II	3.69	3.14	2.74	2.42	2.17	1.64	1.50	1.38	1.23	1.02	0.90	0.84	0.80	0.75	0.71	0.64	0.57	0.52	0.47	0.43	0.41	0.40	0.38	
$n_A \leq 4$		4	4	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	
We,1		3.69	3.14	2.74	2.42	2.17	1.97	1.50	1.38	1.28	1.19	1.12	0.84	0.80	0.75	0.71	0.68	0.65	0.62	0.59	0.57	0.55	0.40	0.38	
$n_B \leq 6$		6	6	6	6	6	6	5	5	5	5	5	4	4	4	4	4	4	4	4	4	4	3	3	
We,10	Colour group III	3.69	3.14	2.28	2.02	1.45	1.31	1.17	0.86	0.77	0.71	0.58	0.48	0.40	0.34	0.29	0.25	0.22	0.20	0.17					
$n_A \leq 4$		4	4	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3					
We,1		3.69	3.14	2.28	2.02	1.81	1.31	1.20	1.11	1.03	0.72	0.67	0.63	0.60	0.56	0.54	0.51	0.49	0.47	0.45					
$n_B \leq 6$		6	6	5	5	5	4	4	4	4	3	3	3	3	3	3	3	3	3	3					

Four-span element, allowable wind suction load allow. w_s [kN/m ²]																								
Span L[m]		1.50	1.75	2.00	2.25	2.50	2.75	3.00	3.25	3.50	3.75	4.00	4.25	4.50	4.75	5.00	5.25	5.50	5.75	6.00	6.25	6.50	6.75	7.00
We,10	Colour group I	3.72	3.17	2.75	2.43	2.18	1.97	1.80	1.65	1.43	1.19	1.11	1.04	0.98	0.88	0.80	0.71	0.64	0.60	0.55	0.51	0.47	0.44	0.41
$n_A \leq 4$		4	4	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
We,1		3.72	3.17	2.75	2.43	2.18	1.97	1.80	1.65	1.53	1.42	1.11	1.04	0.98	0.93	0.88	0.83	0.79	0.76	0.73	0.56	0.54	0.52	0.50
$n_B \leq 6$		6	6	6	6	6	6	6	6	6	6	5	5	5	5	5	5	5	5	5	4	4	4	4
We,10	Colour group II	3.72	3.17	2.75	2.34	1.82	1.64	1.50	1.38	1.22	0.99	0.89	0.83	0.78	0.74	0.68	0.60	0.53	0.47	0.44	0.42	0.40	0.38	0.35
$n_A \leq 4$		4	4	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
We,1		3.72	3.17	2.75	2.43	2.18	1.97	1.50	1.38	1.27	1.18	1.11	0.83	0.78	0.74	0.70	0.67	0.64	0.61	0.58	0.56	0.40	0.39	0.37
$n_B \leq 6$		6	6	6	6	6	6	5	5	5	5	5	4	4	4	4	4	4	4	4	4	3	3	3
We,10	Colour group III	3.10	2.64	1.83	1.62	1.45	1.31	1.17	0.86	0.76	0.70	0.55	0.44	0.36	0.30	0.25	0.20	0.17						
$n_A \leq 4$		3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3						
We,1		3.10	2.64	2.29	1.62	1.45	1.31	1.20	1.10	1.02	0.71	0.66	0.62	0.59	0.56	0.53	0.50	0.48						
$n_B \leq 6$		5	5	5	4	4	4	4	4	4	3	3	3	3	3	3	3	3						

Load tables for preliminary design of buildings with normal internal temperatures
(not valid for cold stores or chillrooms)



Type of fixing



End support:

screws with washer $d \geq 16$ mm
characteristic tensile force "pull through the sheet" $F_{z,k}(b_A) = 2.3$ kN/screw

Intermediate support:

screws with washer $d \geq 16$ mm
characteristic tensile force "pull through the sheet" $F_{z,k}(b_B) = 2.3$ kN/screw

The verification "pull out of the substructure" must be calculated separately!

Line b_A : Minimum end support width b_A in [mm] for the relevant wind-pressure load.

Line b_B : Minimum intermediate support width b_B in [mm] for the relevant wind-pressure load.

Line n_A : Number of screws per module width at the end support b_A for the relevant wind-suction load.

Line n_B : Number of screws per module width at the intermediate support b_B for the relevant wind-suction load.

Line $W_{e,10}$: Allowable wind pressure/suction load in [kN/m²] in consideration of the panel design with a deflection restriction $\max f \leq L/100$.

Line $W_{e,1}$: Allowable wind suction load in [kN/m²] in consideration of the fastener design.

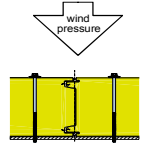
Colour group I, II, III: The following temperature differences between the cover sheets have been taken into consideration for secondary loads in the cover sheets, in accordance with the general approval issued by the building inspection authorities:

Season	Colour Group	t_{indoor}	$t_{\text{outdoor}} - t_{\text{indoor}}$
summer	I / II / III	25°C	+30 / +40 / +55 °C
winter	all	20°C	-40 °C

The tables do not replace the structural analysis required for execution of the constructional work. The allowable wind loads are specified in [kN/m²] and have been determined in accordance with the provisions of official approval no. Z-10.4-428 issued by the German building inspection authorities. The load tables contain both load and material safety factors.

Please note the maximum length supplied, especially in the case of multi-span elements.

Load tables for wind pressure

Single-span element, allowable wind pressure load allow. w_p [kN/m²]

Span L [m]	2.00	2.25	2.50	2.75	3.00	3.25	3.50	3.75	4.00	4.25	4.50	4.75	5.00	5.25	5.50	5.75	6.00	6.25	6.50	6.75	7.00	7.25	7.50
$b_A = 40$ [mm]	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40
$W_{e,10}$	2.36	2.09	1.89	1.71	1.57	1.45	1.35	1.26	1.18	1.11	1.05	0.99	0.94	0.87	0.80	0.73	0.67	0.62	0.57	0.53	0.49	0.44	0.40
$b_A \leq 60$ [mm]	60	60	60	60	60	60	58	54	51	48	45	43	41	40	40	40	40	40	40	40	40	40	40
$W_{e,10}$	3.54	3.14	2.83	2.57	2.36	2.18	1.97	1.71	1.51	1.33	1.19	1.07	0.96	0.87	0.80	0.73	0.67	0.62	0.57	0.53	0.49	0.44	0.40
$b_A \leq 80$ [mm]	76	76	76	74	68	63	58	54	51	48	45	43	41	40	40	40	40	40	40	40	40	40	40
$W_{e,10}$	4.45	3.96	3.56	3.19	2.67	2.28	1.97	1.71	1.51	1.33	1.19	1.07	0.96	0.87	0.80	0.73	0.67	0.62	0.57	0.53	0.49	0.44	0.40

Two-span element, allowable wind pressure load allow. w_p [kN/m²]

Span L [m]	2.00	2.25	2.50	2.75	3.00	3.25	3.50	3.75	4.00	4.25	4.50	4.75	5.00	5.25	5.50	5.75	6.00	6.25	6.50	6.75	7.00	7.25	7.50
$b_A = 40$ [mm]	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40
$W_{e,10}$	1.57	1.37	1.22	1.11	1.02	0.94	0.88	0.83	0.78	0.74	0.71	0.67	0.64	0.62	0.59	0.57	0.51	0.46	0.42	0.38	0.34	0.32	0.29
$b_B = 60$ [mm]	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60
$b_A \leq 60$ [mm]	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40
$W_{e,10}$	2.34	2.05	1.83	1.65	1.51	1.39	1.30	1.21	1.14	1.08	1.02	0.96	0.84	0.73	0.64	0.57	0.51	0.46	0.42	0.38	0.34	0.32	0.29
$b_B \leq 80$ [mm]	80	80	80	80	80	80	80	80	80	80	80	79	74	68	64	60	60	60	60	60	60	60	60
$b_A \leq 80$ [mm]	62	63	63	62	63	62	58	54	51	48	43	40	40	40	40	40	40	40	40	40	40	40	40
$W_{e,10}$	3.68	3.28	2.95	2.68	2.46	2.27	1.97	1.71	1.51	1.33	1.13	0.96	0.84	0.73	0.64	0.57	0.51	0.46	0.42	0.38	0.34	0.32	0.29
$b_B \leq 125$ [mm]	125	125	125	125	125	125	117	109	102	96	87	79	74	68	64	60	60	60	60	60	60	60	60

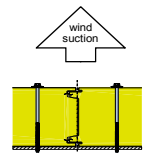
Three-span element, allowable wind pressure load allow. w_p [kN/m²]

Span L [m]	2.00	2.25	2.50	2.75	3.00	3.25	3.50	3.75	4.00	4.25	4.50	4.75	5.00	5.25	5.50	5.75	6.00	6.25	6.50	6.75	7.00	7.25	7.50
$b_A = 40$ [mm]	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40
$W_{e,10}$	1.77	1.57	1.41	1.29	1.18	1.09	1.01	0.94	0.88	0.83	0.79	0.74	0.71	0.67	0.64	0.62	0.59	0.57	0.54	0.52	0.49	0.46	0.43
$b_B = 60$ [mm]	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60
$b_A \leq 60$ [mm]	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40
$W_{e,10}$	2.36	2.10	1.89	1.71	1.57	1.45	1.35	1.26	1.18	1.11	1.05	0.99	0.94	0.87	0.80	0.73	0.67	0.62	0.57	0.53	0.49	0.46	0.43
$b_B \leq 80$ [mm]	80	80	80	80	80	80	80	80	80	80	80	80	80	78	74	71	68	65	63	60	60	60	60
$b_A \leq 80$ [mm]	63	63	63	63	63	63	58	54	51	48	45	43	41	40	40	40	40	40	40	40	40	40	40
$W_{e,10}$	3.69	3.28	2.95	2.68	2.46	2.27	1.97	1.71	1.50	1.33	1.19	1.07	0.96	0.87	0.80	0.73	0.67	0.62	0.57	0.53	0.49	0.46	0.43
$b_B \leq 125$ [mm]	125	125	125	125	125	125	117	109	102	96	91	86	82	78	74	71	68	65	63	60	60	60	60

Four-span element, allowable wind pressure load allow. w_p [kN/m²]

Span L [m]	2.00	2.25	2.50	2.75	3.00	3.25	3.50	3.75	4.00	4.25	4.50	4.75	5.00	5.25	5.50	5.75	6.00	6.25	6.50	6.75	7.00	7.25	7.50
$b_A = 40$ [mm]	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40
$W_{e,10}$	1.77	1.57	1.41	1.29	1.18	1.09	1.01	0.94	0.88	0.83	0.79	0.74	0.71	0.67	0.64	0.62	0.59	0.57	0.54	0.51	0.47	0.44	0.40
$b_B = 60$ [mm]	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60
$b_A \leq 60$ [mm]	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40
$W_{e,10}$	2.36	2.10	1.89	1.71	1.57	1.45	1.35	1.26	1.18	1.11	1.05	0.99	0.94	0.87	0.80	0.73	0.67	0.61	0.56	0.51	0.47	0.44	0.40
$b_B \leq 80$ [mm]	80	80	80	80	80	80	80	80	80	80	80	80	80	78	74	71	68	65	62	60	60	60	60
$b_A \leq 80$ [mm]	63	63	62	63	62	63	58	54	51	48	45	43	41	40	40	40	40	40	40	40	40	40	40
$W_{e,10}$	3.69	3.28	2.95	2.68	2.46	2.27	1.97	1.71	1.51	1.33	1.19	1.07	0.96	0.87	0.80	0.73	0.67	0.61	0.56	0.51	0.47	0.44	0.40
$b_B \leq 125$ [mm]	125	125	125	125	125	125	117	109	102	96	91	86	82	78	74	71	68	65	62	60	60	60	60

Load tables for wind suction



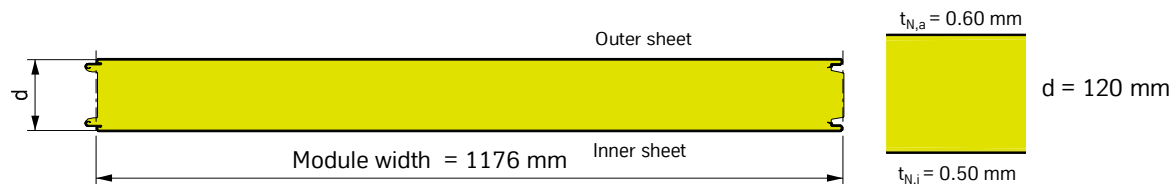
Single-span element, allowable wind suction load										allow. w_s [kN/m ²]														
Span L[m]		2.00	2.25	2.50	2.75	3.00	3.25	3.50	3.75	4.00	4.25	4.50	4.75	5.00	5.25	5.50	5.75	6.00	6.25	6.50	6.75	7.00	7.25	7.50
We,10	Colour group I-III	4.45	3.96	3.56	3.24	2.75	2.34	2.02	1.76	1.55	1.37	1.22	1.10	0.99	0.90	0.82	0.75	0.69	0.63	0.59	0.54	0.50	0.47	0.44
$n_A = 3$		3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
We,1		2.93	2.61	2.35	2.13	1.96	1.81	1.68	1.56	1.47	1.38	1.30	1.24	1.17	1.12	1.07	1.02	0.98	0.94	0.90	0.87	0.84	0.81	0.78
$n_A = 6$		6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6
We,1		5.87	5.22	4.69	4.27	3.91	3.61	3.35	3.13	2.93	2.76	2.61	2.47	2.35	2.24	2.13	2.04	1.96	1.88	1.81	1.74	1.68	1.62	1.56

Two-span element, allowable wind suction load allow. w _s [kN/m ²]																								
Span L[m]		2.00	2.25	2.50	2.75	3.00	3.25	3.50	3.75	4.00	4.25	4.50	4.75	5.00	5.25	5.50	5.75	6.00	6.25	6.50	6.75	7.00	7.25	7.50
We,10	Colour group I	2.64	2.32	2.06	1.86	1.69	1.54	1.42	1.32	1.17	0.96	0.91	0.85	0.81	0.72	0.63	0.56	0.53	0.51	0.49	0.47	0.45	0.41	0.38
n _A ≤ 4		3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
We,1 n _B ≤ 6		2.64 6	2.32 6	2.06 6	1.86 6	1.69 6	1.54 6	1.42 6	1.32 6	1.23 6	1.15 6	0.91 5	0.86 5	0.81 5	0.74 5	0.73 5	0.70 5	0.53 4	0.51 4	0.49 4	0.47 4	0.46 4	0.44 4	0.42 4
We,10	Colour group II	2.64	2.32	2.06	1.86	1.69	1.38	1.19	1.10	0.95	0.77	0.72	0.68	0.65	0.55	0.47	0.42	0.40	0.38	0.35	0.31	0.28	0.25	0.23
n _A ≤ 4		3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
We,1 n _B ≤ 6		2.64 6	2.32 6	2.06 6	1.86 6	1.69 6	1.54 6	1.19 5	1.10 5	1.03 5	0.96 5	0.72 4	0.68 4	0.65 4	0.62 4	0.59 4	0.56 4	0.53 4	0.38 3	0.37 3	0.35 3	0.34 3	0.33 3	0.32 3
We,10	Colour group III	2.64	2.32	1.91	1.55	1.15	1.03	0.91	0.60	0.58	0.40	0.27												
n _A ≤ 4		3	3	3	3	3	3	3	3	3	3	3												
We,1 n _B ≤ 6		2.64 6	2.32 6	2.06 6	1.55 5	1.40 5	1.03 4	0.95 4	0.88 4	0.59 3	0.58 3	0.54 3												

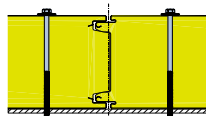
Three-span element, allowable wind suction load allow. w_s [kN/m ²]																									
Span L[m]		2.00	2.25	2.50	2.75	3.00	3.25	3.50	3.75	4.00	4.25	4.50	4.75	5.00	5.25	5.50	5.75	6.00	6.25	6.50	6.75	7.00	7.25	7.50	
We,10	Colour group I	2.75	2.43	2.18	1.98	1.81	1.67	1.54	1.44	1.35	1.16	1.00	0.94	0.90	0.85	0.81	0.75	0.69	0.63	0.59	0.54	0.50	0.47	0.44	
$n_A \leq 4$		4	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	
We,1		2.75	2.43	2.18	1.98	1.81	1.67	1.54	1.44	1.35	1.27	1.20	0.94	0.90	0.85	0.81	0.78	0.74	0.71	0.69	0.66	0.64	0.61	0.59	
$n_B \leq 6$		6	6	6	6	6	6	6	6	6	6	6	5	5	5	5	5	5	5	5	5	5	5	5	5
We,10	Colour group II	2.75	2.43	2.18	1.98	1.75	1.39	1.29	1.20	1.12	0.97	0.82	0.75	0.72	0.68	0.65	0.62	0.59	0.54	0.49	0.45	0.42	0.38	0.36	
$n_A \leq 4$		4	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	
We,1		2.75	2.43	2.18	1.98	1.81	1.67	1.29	1.20	1.12	1.05	1.00	0.94	0.72	0.68	0.65	0.62	0.60	0.57	0.55	0.53	0.51	0.49	0.48	
$n_B \leq 6$		6	6	6	6	6	6	5	5	5	5	5	5	4	4	4	4	4	4	4	4	4	4	4	4
We,10	Colour group III	2.75	2.03	1.82	1.34	1.21	1.11	0.98	0.75	0.67	0.63	0.55	0.46	0.39	0.34	0.29	0.25	0.22	0.20	0.17					
$n_A \leq 4$		4	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3					
We,1		2.75	2.43	1.82	1.65	1.21	1.11	1.03	0.96	0.90	0.63	0.60	0.57	0.54	0.51	0.49	0.47	0.45	0.43	0.41					
$n_B \leq 6$		6	6	5	5	4	4	4	4	4	3	3	3	3	3	3	3	3	3	3					

Four-span element, allowable wind suction load allow. w_s [kN/m ²]																								
Span L[m]		2.00	2.25	2.50	2.75	3.00	3.25	3.50	3.75	4.00	4.25	4.50	4.75	5.00	5.25	5.50	5.75	6.00	6.25	6.50	6.75	7.00	7.25	7.50
We,10	Colour group I	2.77	2.45	2.19	1.98	1.81	1.67	1.54	1.43	1.34	1.14	0.99	0.93	0.88	0.84	0.80	0.74	0.66	0.60	0.55	0.52	0.50	0.47	0.44
$n_A \leq 4$		4	4	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
We,1		2.77	2.45	2.19	1.98	1.81	1.67	1.54	1.43	1.34	1.26	1.18	0.93	0.88	0.84	0.80	0.76	0.73	0.70	0.67	0.65	0.50	0.48	0.46
$n_B \leq 6$		6	6	6	6	6	6	6	6	6	6	6	5	5	5	5	5	5	5	5	5	4	4	4
We,10	Colour group II	2.77	2.45	2.19	1.82	1.51	1.39	1.28	1.19	1.12	0.95	0.80	0.75	0.71	0.67	0.64	0.61	0.55	0.50	0.45	0.41	0.38	0.36	0.35
$n_A \leq 4$		4	4	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
We,1		2.77	2.45	2.19	1.98	1.81	1.66	1.28	1.19	1.12	1.05	0.99	0.93	0.71	0.67	0.64	0.61	0.58	0.56	0.54	0.52	0.50	0.48	0.46
$n_B \leq 6$		6	6	6	6	6	6	5	5	5	5	5	5	4	4	4	4	4	4	4	4	4	4	4
We,10	Colour group III	2.31	1.63	1.46	1.32	1.21	1.11	0.98	0.75	0.67	0.63	0.52	0.43	0.36	0.30	0.25	0.21	0.18						
$n_A \leq 4$		3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3						
We,1		2.31	2.04	1.46	1.32	1.21	1.11	1.03	0.95	0.89	0.63	0.59	0.56	0.53	0.50	0.48	0.46	0.44						
$n_B \leq 6$		5	5	4	4	4	4	4	4	4	3	3	3	3	3	3	3	3						

Load tables for preliminary design of buildings with normal internal temperatures (not valid for cold stores or chillrooms)



Type of fixing



End support:

screws with washer $d \geq 16$ mm
characteristic tensile force "pull through the sheet" $F_{z,k}(b_A) = 2.3$ kN/screw

Intermediate support:

screws with washer $d \geq 16$ mm
characteristic tensile force "pull through the sheet" $F_{z,k}(b_B) = 2.3$ kN/screw

The verification "pull out of the substructure" must be calculated separately!

Line b_A : Minimum end support width b_A in [mm] for the relevant wind-pressure load.

Line b_B : Minimum intermediate support width b_B in [mm] for the relevant wind-pressure load.

Line n_A : Number of screws per module width at the end support b_A for the relevant wind-suction load.

Line n_B : Number of screws per module width at the intermediate support b_B for the relevant wind-suction load.

Line $W_{e,10}$: Allowable wind pressure/suction load in [kN/m²] in consideration of the panel design with a deflection restriction $\max f \leq L/100$.

Line $W_{e,1}$: Allowable wind suction load in [kN/m²] in consideration of the fastener design.

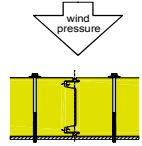
Colour group I, II, III: The following temperature differences between the cover sheets have been taken into consideration for secondary loads in the cover sheets, in accordance with the general approval issued by the building inspection authorities:

Season	Colour Group	t_{indoor}	$t_{\text{outdoor}} - t_{\text{indoor}}$
summer	I / II / III	25°C	+30 / +40 / +55 °C
winter	all	20°C	-40 °C

The tables do not replace the structural analysis required for execution of the constructional work. The allowable wind loads are specified in [kN/m²] and have been determined in accordance with the provisions of official approval no. Z-10.4-428 issued by the German building inspection authorities. The load tables contain both load and material safety factors.

Please note the maximum length supplied, especially in the case of multi-span elements.

Load tables for wind pressure

**Single-span element, allowable wind pressure load allow. w_p [kN/m²]**

Span L[m]	2.00	2.25	2.50	2.75	3.00	3.25	3.50	3.75	4.00	4.25	4.50	4.75	5.00	5.25	5.50	5.75	6.00	6.25	6.50	6.75	7.00	7.25	7.50
$b_A = 40$ [mm]	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40
$W_{e,10}$	2.36	2.09	1.89	1.71	1.57	1.45	1.35	1.26	1.18	1.11	1.05	0.99	0.94	0.90	0.86	0.82	0.79	0.75	0.73	0.70	0.67	0.62	0.58
$b_A \leq 60$ [mm]	60	60	60	60	60	60	60	60	60	60	60	58	56	53	51	48	46	45	43	41	40	40	40
$W_{e,10}$	3.54	3.14	2.83	2.57	2.36	2.18	2.02	1.89	1.77	1.67	1.57	1.45	1.31	1.19	1.08	0.99	0.91	0.84	0.78	0.72	0.67	0.62	0.58
$b_A \leq 80$ [mm]	80	80	80	80	80	80	79	74	70	65	62	58	56	53	51	48	46	45	43	41	40	40	40
$W_{e,10}$	4.72	4.19	3.77	3.43	3.15	2.91	2.68	2.33	2.05	1.82	1.62	1.45	1.31	1.19	1.08	0.99	0.91	0.84	0.78	0.72	0.67	0.62	0.58

Two-span element, allowable wind pressure load allow. w_p [kN/m²]

Span L[m]	2.00	2.25	2.50	2.75	3.00	3.25	3.50	3.75	4.00	4.25	4.50	4.75	5.00	5.25	5.50	5.75	6.00	6.25	6.50	6.75	7.00	7.25	7.50
$b_A = 40$ [mm]	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40
$W_{e,10}$	1.57	1.36	1.21	1.09	0.99	0.91	0.85	0.80	0.75	0.71	0.68	0.65	0.62	0.59	0.57	0.55	0.53	0.51	0.50	0.48	0.47	0.43	0.40
$b_B = 60$ [mm]	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60
$b_A \leq 60$ [mm]	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40
$W_{e,10}$	2.35	2.05	1.82	1.64	1.49	1.37	1.27	1.19	1.12	1.05	1.00	0.95	0.91	0.87	0.83	0.80	0.71	0.64	0.58	0.52	0.47	0.43	0.40
$b_B \leq 80$ [mm]	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	76	71	67	64	61	60	60
$b_A \leq 80$ [mm]	62	63	62	63	62	62	62	62	63	63	62	55	50	46	42	40	40	40	40	40	40	40	40
$W_{e,10}$	3.68	3.28	2.95	2.68	2.46	2.27	2.10	1.96	1.84	1.74	1.62	1.38	1.19	1.03	0.91	0.80	0.71	0.64	0.58	0.52	0.47	0.43	0.40
$b_B \leq 125$ [mm]	125	125	125	125	125	125	125	125	125	125	124	111	101	92	86	80	76	71	67	64	61	60	60

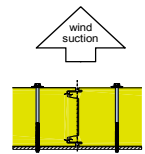
Three-span element, allowable wind pressure load allow. w_p [kN/m²]

Span L[m]	2.00	2.25	2.50	2.75	3.00	3.25	3.50	3.75	4.00	4.25	4.50	4.75	5.00	5.25	5.50	5.75	6.00	6.25	6.50	6.75	7.00	7.25	7.50
$b_A = 40$ [mm]	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40
$W_{e,10}$	1.77	1.57	1.42	1.29	1.18	1.09	1.01	0.94	0.88	0.83	0.79	0.74	0.71	0.67	0.64	0.62	0.59	0.57	0.54	0.52	0.51	0.49	0.47
$b_B = 60$ [mm]	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60
$b_A \leq 60$ [mm]	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40
$W_{e,10}$	2.36	2.10	1.89	1.71	1.57	1.45	1.35	1.26	1.18	1.11	1.05	0.99	0.94	0.90	0.86	0.82	0.79	0.75	0.73	0.70	0.66	0.61	0.57
$b_B \leq 80$ [mm]	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	78	75	72
$b_A \leq 80$ [mm]	62	63	63	63	63	63	63	62	63	62	62	58	56	53	51	48	46	45	43	41	40	40	40
$W_{e,10}$	3.68	3.28	2.95	2.68	2.46	2.27	2.11	1.97	1.84	1.73	1.62	1.45	1.31	1.19	1.08	0.99	0.91	0.84	0.78	0.71	0.66	0.61	0.57
$b_B \leq 125$ [mm]	125	125	125	125	125	125	125	125	125	125	124	117	111	106	101	97	93	89	85	82	78	75	72

Four-span element, allowable wind pressure load allow. w_p [kN/m²]

Span L[m]	2.00	2.25	2.50	2.75	3.00	3.25	3.50	3.75	4.00	4.25	4.50	4.75	5.00	5.25	5.50	5.75	6.00	6.25	6.50	6.75	7.00	7.25	7.50
$b_A = 40$ [mm]	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40
$W_{e,10}$	1.77	1.57	1.41	1.29	1.18	1.09	1.01	0.94	0.88	0.83	0.79	0.74	0.71	0.67	0.64	0.62	0.59	0.57	0.54	0.52	0.51	0.49	0.47
$b_B = 60$ [mm]	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60
$b_A \leq 60$ [mm]	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40
$W_{e,10}$	2.36	2.09	1.89	1.71	1.57	1.45	1.35	1.26	1.18	1.11	1.05	0.99	0.94	0.90	0.86	0.82	0.79	0.75	0.73	0.68	0.62	0.57	0.53
$b_B \leq 80$ [mm]	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	78	74	71	68
$b_A \leq 80$ [mm]	63	63	62	63	62	62	63	62	63	62	62	59	56	53	51	48	46	43	41	40	40	40	40
$W_{e,10}$	3.69	3.28	2.95	2.68	2.45	2.27	2.11	1.97	1.84	1.73	1.62	1.45	1.31	1.19	1.08	0.99	0.89	0.81	0.74	0.68	0.62	0.57	0.53
$b_B \leq 125$ [mm]	125	125	125	125	125	125	125	125	125	125	124	117	111	106	101	97	91	86	82	78	74	71	68

Load tables for wind suction



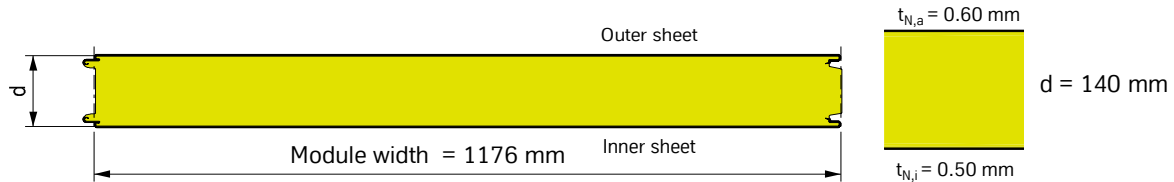
Single-span element, allowable wind suction load										allow. w_s [kN/m ²]															
Span L[m]		2.00	2.25	2.50	2.75	3.00	3.25	3.50	3.75	4.00	4.25	4.50	4.75	5.00	5.25	5.50	5.75	6.00	6.25	6.50	6.75	7.00	7.25	7.50	
We,10	Colour group I-III	5.36	4.76	4.29	3.89	3.40	2.89	2.50	2.18	1.91	1.69	1.51	1.36	1.22	1.11	1.01	0.93	0.85	0.78	0.72	0.67	0.63	0.58	0.54	
		3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	
		We,1	2.93	2.61	2.35	2.13	1.96	1.81	1.68	1.56	1.47	1.38	1.30	1.24	1.17	1.12	1.07	1.02	0.98	0.94	0.90	0.87	0.84	0.81	0.78
		We,1	5.87	5.22	4.69	4.27	3.91	3.61	3.35	3.13	2.93	2.76	2.61	2.47	2.35	2.24	2.13	2.04	1.96	1.88	1.81	1.74	1.68	1.62	1.56

Two-span element, allowable wind suction load allow. w _s [kN/m ²]																								
Span L[m]		2.00	2.25	2.50	2.75	3.00	3.25	3.50	3.75	4.00	4.25	4.50	4.75	5.00	5.25	5.50	5.75	6.00	6.25	6.50	6.75	7.00	7.25	7.50
We,10	Colour group I	2.68	2.35	2.09	1.88	1.71	1.57	1.44	1.34	1.25	1.17	1.10	1.04	0.88	0.77	0.74	0.70	0.67	0.64	0.57	0.52	0.47	0.44	0.43
n _A ≤ 4		4	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	
We,1		2.68	2.35	2.09	1.88	1.71	1.57	1.44	1.34	1.25	1.17	1.10	1.04	0.98	0.93	0.74	0.70	0.67	0.64	0.62	0.59	0.57	0.55	0.43
n _B ≤ 6		6	6	6	6	6	6	6	6	6	6	6	6	6	6	5	5	5	5	5	5	5	5	4
We,10	Colour group II	2.68	2.35	2.09	1.88	1.71	1.56	1.44	1.34	1.04	0.97	0.91	0.84	0.69	0.62	0.59	0.56	0.54	0.50	0.45	0.39	0.35	0.33	0.32
n _A ≤ 4		4	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	
We,1		2.68	2.35	2.09	1.88	1.71	1.57	1.44	1.34	1.25	0.97	0.91	0.86	0.82	0.77	0.59	0.56	0.54	0.52	0.49	0.48	0.46	0.44	0.43
n _B ≤ 6		6	6	6	6	6	6	6	6	6	5	5	5	5	5	4	4	4	4	4	4	4	4	4
We,10	Colour group III	2.68	2.35	2.09	1.88	1.48	1.30	1.14	0.89	0.83	0.72	0.51	0.47	0.41	0.30	0.23								
n _A ≤ 4		4	3	3	3	3	3	3	3	3	3	3	3	3	3	3								
We,1		2.68	2.35	2.09	1.88	1.71	1.30	1.20	0.89	0.83	0.78	0.73	0.47	0.47	0.46	0.44								
n _B ≤ 6		6	6	6	6	6	5	5	4	4	4	4	3	3	3	3								

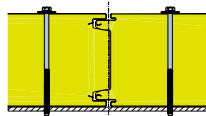
Three-span element, allowable wind suction load allow. w_s [kN/m ²]																									
Span L[m]		2.00	2.25	2.50	2.75	3.00	3.25	3.50	3.75	4.00	4.25	4.50	4.75	5.00	5.25	5.50	5.75	6.00	6.25	6.50	6.75	7.00	7.25	7.50	
We,10	Colour group I	2.77	2.45	2.19	1.99	1.82	1.67	1.55	1.44	1.35	1.27	1.20	1.13	1.07	0.95	0.84	0.78	0.75	0.72	0.69	0.66	0.63	0.58	0.54	
$n_A \leq 4$		4	4	4	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	
We,1		2.77	2.45	2.19	1.99	1.82	1.67	1.55	1.44	1.35	1.27	1.20	1.13	1.08	1.02	0.98	0.93	0.75	0.72	0.69	0.66	0.64	0.62	0.59	
$n_B \leq 6$		6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	5	5	5	5	5	5	5	5
We,10	Colour group II	2.77	2.45	2.19	1.99	1.82	1.67	1.55	1.33	1.13	1.06	1.00	0.94	0.90	0.80	0.71	0.63	0.60	0.57	0.55	0.53	0.51	0.49	0.48	
$n_A \leq 4$		4	4	4	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	
We,1		2.77	2.45	2.19	1.99	1.82	1.67	1.55	1.44	1.35	1.06	1.00	0.94	0.90	0.85	0.81	0.78	0.75	0.57	0.55	0.53	0.51	0.49	0.48	
$n_B \leq 6$		6	6	6	6	6	6	6	6	6	5	5	5	5	5	5	5	5	4	4	4	4	4	4	4
We,10	Colour group III	2.77	2.45	2.19	1.66	1.51	1.29	1.03	0.96	0.90	0.85	0.71	0.59	0.54	0.51	0.49	0.44	0.39	0.34	0.30	0.27	0.25	0.22	0.20	
$n_A \leq 4$		4	4	4	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	
We,1		2.77	2.45	2.19	1.66	1.51	1.39	1.29	0.96	0.90	0.85	0.80	0.76	0.72	0.51	0.49	0.47	0.45	0.43	0.41	0.40	0.38	0.37	0.36	
$n_B \leq 6$		6	6	6	5	5	5	5	4	4	4	4	4	4	3	3	3	3	3	3	3	3	3	3	3

Four-span element, allowable wind suction load allow. w_s [kN/m ²]																								
Span L[m]		2.00	2.25	2.50	2.75	3.00	3.25	3.50	3.75	4.00	4.25	4.50	4.75	5.00	5.25	5.50	5.75	6.00	6.25	6.50	6.75	7.00	7.25	7.50
We,10	Colour group I	2.79	2.47	2.21	2.00	1.82	1.68	1.55	1.44	1.35	1.26	1.19	1.12	1.05	0.93	0.82	0.77	0.73	0.70	0.68	0.65	0.63	0.58	0.53
$n_A \leq 4$		4	4	4	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
We,1		2.79	2.47	2.21	2.00	1.82	1.68	1.55	1.44	1.35	1.26	1.19	1.13	1.07	1.01	0.97	0.92	0.73	0.70	0.68	0.65	0.63	0.60	0.58
$n_B \leq 6$		6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	5	5	5	5	5	5	5
We,10	Colour group II	2.79	2.47	2.21	2.00	1.82	1.68	1.49	1.29	1.12	1.05	0.99	0.94	0.89	0.78	0.68	0.61	0.59	0.56	0.54	0.52	0.50	0.48	0.45
$n_A \leq 4$		4	4	4	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
We,1		2.79	2.47	2.21	2.00	1.82	1.68	1.55	1.44	1.35	1.05	0.99	0.94	0.89	0.84	0.80	0.77	0.73	0.56	0.54	0.52	0.50	0.48	0.47
$n_B \leq 6$		6	6	6	6	6	6	6	6	6	5	5	5	5	5	5	5	5	4	4	4	4	4	4
We,10	Colour group III	2.32	2.05	1.84	1.42	1.22	1.12	1.03	0.96	0.90	0.84	0.70	0.57	0.53	0.51	0.47	0.41	0.35	0.30	0.27	0.23	0.21	0.18	
$n_A \leq 4$		4	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	
We,1		2.79	2.05	1.84	1.66	1.52	1.12	1.03	0.96	0.90	0.84	0.79	0.75	0.71	0.51	0.48	0.46	0.44	0.42	0.41	0.39	0.38	0.36	
$n_B \leq 6$		6	5	5	5	5	4	4	4	4	4	4	4	4	3	3	3	3	3	3	3	3	3	

Load tables for preliminary design of buildings with normal internal temperatures (not valid for cold stores or chillrooms)



Type of fixing



End support:

screws with washer $d \geq 16$ mm
characteristic tensile force "pull through the sheet" $F_{z,k}(b_A) = 2.3$ kN/screw

Intermediate support:

screws with washer $d \geq 16$ mm
characteristic tensile force "pull through the sheet" $F_{z,k}(b_B) = 2.3$ kN/screw

The verification "pull out of the substructure" must be calculated separately!

Line b_A : Minimum end support width b_A in [mm] for the relevant wind-pressure load.

Line b_B : Minimum intermediate support width b_B in [mm] for the relevant wind-pressure load.

Line n_A : Number of screws per module width at the end support b_A for the relevant wind-suction load.

Line n_B : Number of screws per module width at the intermediate support b_B for the relevant wind-suction load.

Line $W_{e,10}$: Allowable wind pressure/suction load in [kN/m²] in consideration of the panel design with a deflection restriction $\max f \leq L/100$.

Line $W_{e,1}$: Allowable wind suction load in [kN/m²] in consideration of the fastener design.

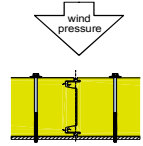
Colour group I, II, III: The following temperature differences between the cover sheets have been taken into consideration for secondary loads in the cover sheets, in accordance with the general approval issued by the building inspection authorities:

Season	Colour Group	t_{indoor}	$t_{\text{outdoor}} - t_{\text{indoor}}$
summer	I / II / III	25°C	+30 / +40 / +55 °C
winter	all	20°C	-40 °C

The tables do not replace the structural analysis required for execution of the constructional work. The allowable wind loads are specified in [kN/m²] and have been determined in accordance with the provisions of official approval no. Z-10.4-428 issued by the German building inspection authorities. The load tables contain both load and material safety factors.

Please note the maximum length supplied, especially in the case of multi-span elements.

Load tables for wind pressure



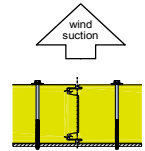
Single-span element, allowable wind pressure load											allow. w_p [kN/m ²]												
Span L[m]	3.50	3.75	4.00	4.25	4.50	4.75	5.00	5.25	5.50	5.75	6.00	6.25	6.50	6.75	7.00	7.25	7.50	7.75	8.00	8.25	8.50	8.75	9.00
$b_A = 40$ [mm]	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40
$W_{e,10}$	1.35	1.26	1.18	1.11	1.05	0.99	0.94	0.90	0.86	0.82	0.79	0.75	0.73	0.70	0.67	0.65	0.63	0.61	0.59	0.57	0.54	0.51	0.49
$b_A \leq 60$ [mm]	60	60	60	60	60	60	60	60	60	58	56	53	51	50	48	46	45	43	42	41	40	40	40
$W_{e,10}$	2.02	1.89	1.77	1.67	1.57	1.49	1.41	1.35	1.29	1.19	1.09	1.01	0.93	0.87	0.80	0.75	0.70	0.66	0.62	0.58	0.54	0.51	0.49
$b_A \leq 80$ [mm]	80	80	80	79	74	70	67	64	61	58	56	53	51	50	48	46	45	43	42	41	40	40	40
$W_{e,10}$	2.70	2.51	2.36	2.18	1.95	1.75	1.58	1.43	1.30	1.19	1.09	1.01	0.93	0.87	0.80	0.75	0.70	0.66	0.62	0.58	0.54	0.51	0.49

Two-span element, allowable wind pressure load allow. w_p [kN/m ²]																							
Span L[m]	3.50	3.75	4.00	4.25	4.50	4.75	5.00	5.25	5.50	5.75	6.00	6.25	6.50	6.75	7.00	7.25	7.50	7.75	8.00	8.25	8.50	8.75	9.00
$b_A = 40$ [mm]	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40
$W_{e,10}$	0.83	0.78	0.73	0.69	0.66	0.63	0.60	0.58	0.55	0.53	0.51	0.50	0.48	0.47	0.45	0.44	0.43	0.42	0.41	0.40	0.39	0.36	0.34
$b_B = 60$ [mm]	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60
$b_A \leq 60$ [mm]	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40
$W_{e,10}$	1.26	1.17	1.10	1.04	0.98	0.93	0.89	0.85	0.81	0.78	0.75	0.72	0.70	0.68	0.64	0.58	0.53	0.49	0.45	0.42	0.39	0.36	0.34
$b_B \leq 80$ [mm]	80	80	80	80	80	80	80	80	80	80	80	80	80	80	78	75	71	68	65	63	60	60	60
$b_A \leq 80$ [mm]	63	63	63	63	62	62	62	62	58	53	49	46	43	40	40	40	40	40	40	40	40	40	40
$W_{e,10}$	2.11	1.97	1.84	1.73	1.64	1.55	1.47	1.40	1.24	1.09	0.97	0.87	0.78	0.70	0.64	0.58	0.53	0.49	0.45	0.42	0.39	0.36	0.34
$b_B \leq 125$ [mm]	125	125	125	125	125	125	125	125	116	107	99	92	87	83	78	75	71	68	65	63	60	60	60

Three-span element, allowable wind pressure load allow. w_p [kN/m ²]																							
Span L[m]	3.50	3.75	4.00	4.25	4.50	4.75	5.00	5.25	5.50	5.75	6.00	6.25	6.50	6.75	7.00	7.25	7.50	7.75	8.00	8.25	8.50	8.75	9.00
$b_A = 40$ [mm]	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40
$W_{e,10}$	1.01	0.94	0.88	0.83	0.79	0.74	0.71	0.67	0.64	0.62	0.59	0.57	0.54	0.52	0.51	0.49	0.47	0.46	0.44	0.43	0.42	0.40	0.39
$b_B = 60$ [mm]	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60
$b_A \leq 60$ [mm]	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40
$W_{e,10}$	1.35	1.26	1.18	1.11	1.05	0.99	0.94	0.90	0.86	0.82	0.79	0.75	0.73	0.70	0.67	0.65	0.63	0.61	0.59	0.57	0.54	0.51	0.48
$b_B \leq 80$ [mm]	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	78	76	73
$b_A \leq 80$ [mm]	62	63	62	63	63	63	62	62	61	58	56	53	51	50	48	46	45	43	42	41	40	40	40
$W_{e,10}$	2.10	1.97	1.84	1.74	1.64	1.55	1.47	1.40	1.30	1.19	1.09	1.01	0.93	0.87	0.80	0.75	0.70	0.66	0.62	0.58	0.54	0.51	0.48
$b_B \leq 125$ [mm]	125	125	125	125	125	125	125	125	121	116	111	107	103	99	96	92	89	86	83	81	78	76	73

Four-span element, allowable wind pressure load											allow. w_p [kN/m ²]													
Span L[m]	3.50	3.75	4.00	4.25	4.50	4.75	5.00	5.25	5.50	5.75	6.00	6.25	6.50	6.75	7.00	7.25	7.50	7.75	8.00	8.25	8.50	8.75	9.00	
$b_A = 40$ [mm]	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	
$W_{e,10}$	1.01	0.94	0.88	0.83	0.79	0.74	0.71	0.67	0.64	0.62	0.59	0.57	0.54	0.52	0.51	0.49	0.47	0.46	0.44	0.43	0.42	0.40	0.39	
$b_B = 60$ [mm]	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	
$b_A \leq 60$ [mm]	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	
$W_{e,10}$	1.35	1.26	1.18	1.11	1.05	0.99	0.94	0.90	0.86	0.82	0.79	0.75	0.73	0.70	0.67	0.65	0.63	0.61	0.59	0.55	0.51	0.48	0.45	
$b_B \leq 80$ [mm]	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	77	74	71	69	
$b_A \leq 80$ [mm]	62	62	62	63	63	63	62	62	61	58	56	53	51	50	48	45	43	42	40	40	40	40	40	
$W_{e,10}$	2.10	1.96	1.84	1.74	1.64	1.55	1.47	1.40	1.30	1.19	1.09	1.01	0.93	0.87	0.80	0.74	0.68	0.63	0.59	0.55	0.51	0.48	0.45	
$b_B \leq 125$ [mm]	125	125	125	125	125	125	125	125	122	116	111	107	103	99	96	91	87	83	80	77	74	71	69	

Load tables for wind suction



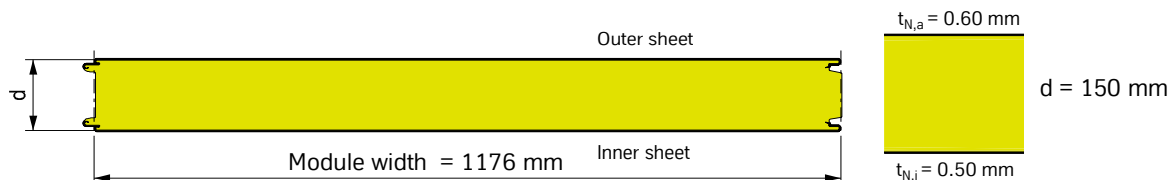
Single-span element, allowable wind suction load											allow. w_s [kN/m ²]													
Span L[m]		3.50	3.75	4.00	4.25	4.50	4.75	5.00	5.25	5.50	5.75	6.00	6.25	6.50	6.75	7.00	7.25	7.50	7.75	8.00	8.25	8.50	8.75	9.00
We,10	Colour group -III	3.00	2.61	2.30	2.04	1.82	1.63	1.47	1.33	1.22	1.11	1.02	0.94	0.87	0.81	0.75	0.70	0.65	0.61	0.57	0.54	0.51	0.48	0.45
		3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
		1.68	1.56	1.47	1.38	1.30	1.24	1.17	1.12	1.07	1.02	0.98	0.94	0.90	0.87	0.84	0.81	0.78	0.76	0.73	0.71	0.69	0.67	0.65
		6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6
$n_A = 3$	We,1	3.35	3.13	2.93	2.76	2.61	2.47	2.35	2.24	2.13	2.04	1.96	1.88	1.81	1.74	1.68	1.62	1.56	1.51	1.47	1.42	1.38	1.34	1.30
$n_A = 6$																								

Two-span element, allowable wind suction load allow. w_s [kN/m ²]																								
Span L[m]		3.50	3.75	4.00	4.25	4.50	4.75	5.00	5.25	5.50	5.75	6.00	6.25	6.50	6.75	7.00	7.25	7.50	7.75	8.00	8.25	8.50	8.75	9.00
We,10	Colour group I $n_A \leq 4$ We,1 $n_B \leq 6$	1.46	1.35	1.26	1.18	1.11	1.05	0.99	0.94	0.89	0.82	0.71	0.65	0.62	0.60	0.58	0.55	0.53	0.49	0.45	0.41	0.38	0.36	0.35
3		3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	
1.46		1.35	1.26	1.18	1.11	1.05	0.99	0.94	0.89	0.85	0.81	0.78	0.62	0.60	0.58	0.55	0.54	0.52	0.50	0.48	0.47	0.46	0.44	
		6	6	6	6	6	6	6	6	6	6	6	6	5	5	5	5	5	5	5	5	5	5	5
We,10	Colour group II $n_A \leq 4$ We,1 $n_B \leq 6$	1.46	1.35	1.26	1.18	1.06	0.87	0.82	0.78	0.74	0.66	0.57	0.52	0.50	0.48	0.46	0.44	0.43	0.38	0.35	0.32	0.29	0.27	0.27
3		3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	
1.46		1.35	1.26	1.18	1.11	1.04	0.82	0.78	0.74	0.71	0.68	0.65	0.50	0.48	0.46	0.44	0.43	0.41	0.40	0.39	0.38	0.36	0.35	
		6	6	6	6	6	6	5	5	5	5	5	5	4	4	4	4	4	4	4	4	4	4	4
We,10	Colour group III $n_A \leq 4$ We,1 $n_B \leq 6$	1.26	1.13	1.05	0.79	0.74	0.70	0.63	0.48	0.39	0.39	0.34	0.27	0.21	0.17									
3		3	3	3	2	2	3	3	3	3	3	3	3	3	3									
1.46		1.13	1.05	0.98	0.74	0.70	0.66	0.63	0.59	0.39	0.39	0.39	0.39	0.37	0.36									
		6	5	5	5	4	4	4	4	4	3	3	3	3	3									

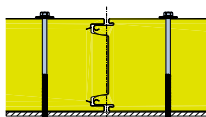
Three-span element, allowable wind suction load											allow. w_s [kN/m ²]														
Span L[m]		3.50	3.75	4.00	4.25	4.50	4.75	5.00	5.25	5.50	5.75	6.00	6.25	6.50	6.75	7.00	7.25	7.50	7.75	8.00	8.25	8.50	8.75	9.00	
We,10	Colour group I	1.55	1.45	1.35	1.27	1.20	1.14	1.08	1.03	0.98	0.94	0.90	0.82	0.75	0.68	0.64	0.62	0.60	0.58	0.56	0.54	0.51	0.48	0.45	
$n_A \leq 4$		3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	
We,1		1.55	1.45	1.35	1.27	1.20	1.14	1.08	1.03	0.98	0.94	0.90	0.86	0.83	0.80	0.77	0.74	0.60	0.58	0.56	0.54	0.52	0.51	0.50	
$n_B \leq 6$		6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	5	5	5	5	5	5	5	5
We,10	Colour group II	1.55	1.45	1.35	1.27	1.11	0.95	0.90	0.85	0.82	0.78	0.75	0.71	0.64	0.58	0.53	0.49	0.48	0.46	0.45	0.43	0.42	0.41	0.40	
$n_A \leq 4$		3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	
We,1		1.55	1.45	1.35	1.27	1.20	1.14	1.08	0.86	0.82	0.78	0.75	0.72	0.69	0.66	0.64	0.62	0.60	0.46	0.45	0.43	0.42	0.41	0.40	
$n_B \leq 6$		6	6	6	6	6	6	6	5	5	5	5	5	5	5	5	5	5	4	4	4	4	4	4	4
We,10	Colour group III	1.30	1.21	0.95	0.85	0.80	0.76	0.72	0.68	0.59	0.51	0.45	0.43	0.41	0.40	0.38	0.35	0.32	0.29	0.27	0.24	0.23	0.21	0.20	
$n_A \leq 4$		3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	
We,1		1.30	1.21	1.13	1.06	0.80	0.76	0.72	0.68	0.65	0.62	0.60	0.57	0.55	0.40	0.38	0.37	0.36	0.35	0.33	0.32	0.31	0.31	0.30	
$n_B \leq 6$		5	5	5	5	4	4	4	4	4	4	4	4	4	3	3	3	3	3	3	3	3	3	3	

Four-span element, allowable wind suction load allow. w_s [kN/m ²]																								
Span L[m]		3.50	3.75	4.00	4.25	4.50	4.75	5.00	5.25	5.50	5.75	6.00	6.25	6.50	6.75	7.00	7.25	7.50	7.75	8.00	8.25	8.50	8.75	9.00
We,10	Colour group I	1.56	1.45	1.36	1.27	1.20	1.13	1.07	1.02	0.97	0.93	0.88	0.80	0.72	0.66	0.63	0.61	0.59	0.57	0.55	0.53	0.51	0.48	0.45
$n_A \leq 4$		3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
We,1		1.56	1.45	1.36	1.27	1.20	1.13	1.07	1.02	0.97	0.93	0.89	0.85	0.82	0.78	0.75	0.61	0.59	0.57	0.55	0.53	0.51	0.50	0.48
$n_B \leq 6$		6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	5	5	5	5	5	5	5	5
We,10	Colour group II	1.56	1.45	1.36	1.27	1.12	0.94	0.89	0.85	0.81	0.77	0.74	0.68	0.61	0.55	0.50	0.48	0.47	0.45	0.44	0.42	0.41	0.40	0.39
$n_A \leq 4$		3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
We,1		1.56	1.45	1.36	1.27	1.20	1.13	1.07	0.85	0.81	0.77	0.74	0.71	0.68	0.65	0.63	0.61	0.47	0.45	0.44	0.42	0.41	0.40	0.39
$n_B \leq 6$		6	6	6	6	6	6	6	5	5	5	5	5	5	5	5	5	4	4	4	4	4	4	4
We,10	Colour group III	1.11	0.97	0.90	0.85	0.80	0.75	0.71	0.68	0.57	0.49	0.44	0.42	0.41	0.39	0.34	0.31	0.28	0.25	0.23	0.21	0.19		
$n_A \leq 4$		3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3		
We,1		1.30	1.21	1.13	1.06	0.80	0.75	0.72	0.68	0.65	0.62	0.59	0.57	0.41	0.39	0.38	0.36	0.35	0.34	0.33	0.32	0.31		
$n_B \leq 6$		5	5	5	5	4	4	4	4	4	4	4	4	4	3	3	3	3	3	3	3	3		

Load tables for preliminary design of buildings with normal internal temperatures (not valid for cold stores or chillrooms)



Type of fixing



End support:

screws with washer $d \geq 16$ mm
characteristic tensile force "pull through the sheet" $F_{z,k}(b_A) = 2.3$ kN/screw

Intermediate support:

screws with washer $d \geq 16$ mm
characteristic tensile force "pull through the sheet" $F_{z,k}(b_B) = 2.3$ kN/screw

The verification "pull out of the substructure" must be calculated separately!

Line b_A : Minimum end support width b_A in [mm] for the relevant wind-pressure load.

Line b_B : Minimum intermediate support width b_B in [mm] for the relevant wind-pressure load.

Line n_A : Number of screws per module width at the end support b_A for the relevant wind-suction load.

Line n_B : Number of screws per module width at the intermediate support b_B for the relevant wind-suction load.

Line $W_{e,10}$: Allowable wind pressure/suction load in [kN/m²] in consideration of the panel design with a deflection restriction $\max f \leq L/100$.

Line $W_{e,1}$: Allowable wind suction load in [kN/m²] in consideration of the fastener design.

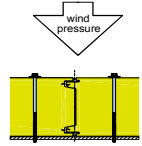
Colour group I, II, III: The following temperature differences between the cover sheets have been taken into consideration for secondary loads in the cover sheets, in accordance with the general approval issued by the building inspection authorities:

Season	Colour Group	t_{indoor}	$t_{\text{outdoor}} - t_{\text{indoor}}$
summer	I / II / III	25°C	+30 / +40 / +55 °C
winter	all	20°C	-40 °C

The tables do not replace the structural analysis required for execution of the constructional work. The allowable wind loads are specified in [kN/m²] and have been determined in accordance with the provisions of official approval no. Z-10.4-428 issued by the German building inspection authorities. The load tables contain both load and material safety factors.

Please note the maximum length supplied, especially in the case of multi-span elements.

Load tables for wind pressure



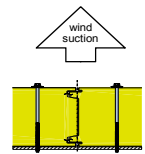
Single-span element, allowable wind pressure load allow. w_p [kN/m ²]																							
Span L[m]	3.50	3.75	4.00	4.25	4.50	4.75	5.00	5.25	5.50	5.75	6.00	6.25	6.50	6.75	7.00	7.25	7.50	7.75	8.00	8.25	8.50	8.75	9.00
$b_A = 40$ [mm]	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40
$W_{e,10}$	1.35	1.26	1.18	1.11	1.05	0.99	0.94	0.90	0.86	0.82	0.79	0.75	0.73	0.70	0.67	0.65	0.63	0.61	0.59	0.57	0.55	0.54	0.52
$b_A \leq 60$ [mm]	60	60	60	60	60	60	60	60	60	60	60	58	56	54	52	50	48	47	45	44	43	41	40
$W_{e,10}$	2.02	1.89	1.77	1.67	1.57	1.49	1.41	1.35	1.29	1.23	1.18	1.10	1.01	0.94	0.87	0.81	0.76	0.71	0.67	0.63	0.59	0.56	0.53
$b_A \leq 80$ [mm]	80	80	80	80	80	76	73	69	66	63	60	58	56	54	52	50	48	47	45	44	43	41	40
$W_{e,10}$	2.70	2.51	2.36	2.22	2.09	1.90	1.71	1.55	1.41	1.29	1.19	1.10	1.01	0.94	0.87	0.81	0.76	0.71	0.67	0.63	0.59	0.56	0.53

Two-span element, allowable wind pressure load allow. w_p [kN/m ²]																							
Span L[m]	3.50	3.75	4.00	4.25	4.50	4.75	5.00	5.25	5.50	5.75	6.00	6.25	6.50	6.75	7.00	7.25	7.50	7.75	8.00	8.25	8.50	8.75	9.00
$b_A = 40$ [mm]	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40
$W_{e,10}$	0.83	0.77	0.73	0.69	0.65	0.62	0.59	0.57	0.54	0.53	0.51	0.49	0.47	0.46	0.45	0.43	0.42	0.41	0.40	0.39	0.38	0.37	0.36
$b_B = 60$ [mm]	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60
$b_A \leq 60$ [mm]	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40
$W_{e,10}$	1.26	1.17	1.10	1.03	0.98	0.93	0.88	0.84	0.81	0.78	0.75	0.72	0.69	0.67	0.65	0.63	0.60	0.55	0.51	0.47	0.44	0.40	0.38
$b_B \leq 80$ [mm]	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	79	76	72	69	67	64	62
$b_A \leq 80$ [mm]	63	62	63	63	62	63	63	62	62	61	57	52	49	46	43	41	40	40	40	40	40	40	40
$W_{e,10}$	2.11	1.97	1.84	1.73	1.64	1.55	1.47	1.40	1.34	1.25	1.11	0.99	0.89	0.80	0.72	0.66	0.60	0.55	0.51	0.47	0.44	0.40	0.38
$b_B \leq 125$ [mm]	125	125	125	125	125	125	125	125	125	122	113	105	98	92	87	83	79	76	72	69	67	64	62

Three-span element, allowable wind pressure load allow. w_p [kN/m ²]																							
Span L[m]	3.50	3.75	4.00	4.25	4.50	4.75	5.00	5.25	5.50	5.75	6.00	6.25	6.50	6.75	7.00	7.25	7.50	7.75	8.00	8.25	8.50	8.75	9.00
$b_A = 40$ [mm]	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40
$W_{e,10}$	1.01	0.94	0.88	0.83	0.79	0.74	0.71	0.67	0.64	0.62	0.59	0.57	0.54	0.52	0.51	0.49	0.47	0.46	0.44	0.43	0.42	0.40	0.39
$b_B = 60$ [mm]	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60
$b_A \leq 60$ [mm]	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40
$W_{e,10}$	1.35	1.26	1.18	1.11	1.05	0.99	0.94	0.90	0.86	0.82	0.79	0.75	0.73	0.70	0.67	0.65	0.63	0.61	0.59	0.57	0.55	0.54	0.52
$b_B \leq 80$ [mm]	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80
$b_A \leq 80$ [mm]	63	63	62	62	63	62	63	62	62	62	60	58	56	54	52	50	48	47	45	44	43	41	40
$W_{e,10}$	2.11	1.97	1.84	1.73	1.64	1.55	1.47	1.40	1.34	1.28	1.19	1.10	1.01	0.94	0.87	0.81	0.76	0.71	0.67	0.63	0.59	0.56	0.53
$b_B \leq 125$ [mm]	125	125	125	125	125	125	125	125	125	125	121	116	112	108	104	100	97	94	91	88	85	83	81

Four-span element, allowable wind pressure load																								allow. w_p [kN/m ²]			
Span L[m]	3.50	3.75	4.00	4.25	4.50	4.75	5.00	5.25	5.50	5.75	6.00	6.25	6.50	6.75	7.00	7.25	7.50	7.75	8.00	8.25	8.50	8.75	9.00				
$b_A = 40$ [mm]	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40				
$W_{e,10}$	1.01	0.94	0.88	0.83	0.79	0.74	0.71	0.67	0.64	0.62	0.59	0.57	0.54	0.52	0.51	0.49	0.47	0.46	0.44	0.43	0.42	0.40	0.39				
$b_B = 60$ [mm]	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60				
$b_A \leq 60$ [mm]	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40				
$W_{e,10}$	1.35	1.26	1.18	1.11	1.05	0.99	0.94	0.90	0.86	0.82	0.79	0.75	0.73	0.70	0.67	0.65	0.63	0.61	0.59	0.57	0.55	0.53	0.50				
$b_B \leq 80$ [mm]	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	79	76				

Load tables for wind suction



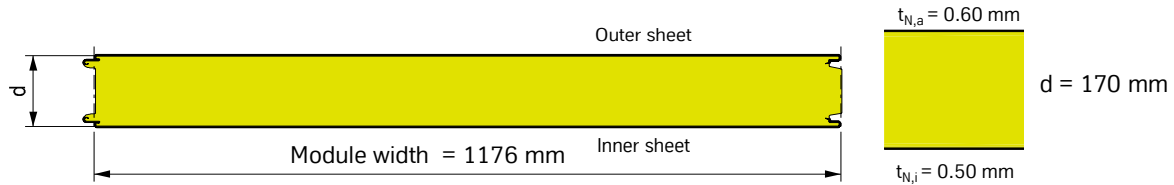
Single-span element, allowable wind suction load											allow. w_s [kN/m ²]																		
Span L[m]	3.50	3.75	4.00	4.25	4.50	4.75	5.00	5.25	5.50	5.75	6.00	6.25	6.50	6.75	7.00	7.25	7.50	7.75	8.00	8.25	8.50	8.75	9.00						
We,10	Colour group I-III	3.26	2.84	2.50	2.21	1.97	1.77	1.60	1.45	1.32	1.21	1.11	1.02	0.95	0.88	0.82	0.76	0.71	0.67	0.63	0.59	0.55	0.52	0.49					
$n_A = 3$		3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3					
We,1		1.68	1.56	1.47	1.38	1.30	1.24	1.17	1.12	1.07	1.02	0.98	0.94	0.90	0.87	0.84	0.81	0.78	0.76	0.73	0.71	0.69	0.67	0.65					
$n_A = 6$		6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6				
We,1		3.35	3.13	2.93	2.76	2.61	2.47	2.35	2.24	2.13	2.04	1.96	1.88	1.81	1.74	1.68	1.62	1.56	1.51	1.47	1.42	1.38	1.34	1.30					

Two-span element, allowable wind suction load												allow. w_s [kN/m ²]													
Span L[m]		3.50	3.75	4.00	4.25	4.50	4.75	5.00	5.25	5.50	5.75	6.00	6.25	6.50	6.75	7.00	7.25	7.50	7.75	8.00	8.25	8.50	8.75	9.00	
We,10	Colour group I $n_A \leq 4$ We,1 $n_B \leq 6$	1.47	1.36	1.27	1.19	1.11	1.05	0.99	0.94	0.90	0.85	0.82	0.73	0.64	0.60	0.58	0.56	0.54	0.52	0.50	0.47	0.43	0.40	0.37	
3		3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3		
1.47		1.36	1.27	1.19	1.11	1.05	0.99	0.94	0.90	0.85	0.82	0.78	0.75	0.72	0.58	0.56	0.54	0.52	0.50	0.49	0.47	0.46	0.44		
6		6	6	6	6	6	6	6	6	6	6	6	6	6	6	5	5	5	5	5	5	5	5	5	
We,10	Colour group II $n_A \leq 4$ We,1 $n_B \leq 6$	1.47	1.36	1.27	1.19	1.11	1.05	0.84	0.79	0.75	0.71	0.68	0.59	0.51	0.48	0.46	0.44	0.43	0.42	0.40	0.37	0.34	0.31	0.29	
3		3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3		
1.47		1.36	1.27	1.19	1.11	1.05	0.99	0.79	0.75	0.71	0.68	0.65	0.62	0.60	0.46	0.45	0.43	0.42	0.40	0.39	0.38	0.37	0.35		
6		6	6	6	6	6	6	6	5	5	5	5	5	5	5	4	4	4	4	4	4	4	4	4	
We,10	Colour group III $n_A \leq 4$ We,1 $n_B \leq 6$	1.47	1.13	1.06	0.99	0.75	0.70	0.66	0.63	0.50	0.38	0.35	0.35	0.30	0.24	0.20	0.16								
3		3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3								
1.47		1.36	1.06	0.99	0.93	0.70	0.66	0.63	0.60	0.57	0.54	0.35	0.36	0.36	0.35	0.33									
6		6	5	5	5	4	4	4	4	4	4	3	3	3	3	3									

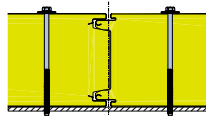
Three-span element, allowable wind suction load							allow. w_s [kN/m ²]																			
Span L[m]		3.50	3.75	4.00	4.25	4.50	4.75	5.00	5.25	5.50	5.75	6.00	6.25	6.50	6.75	7.00	7.25	7.50	7.75	8.00	8.25	8.50	8.75	9.00		
We,10	Colour group I $n_A \leq 4$ We,1 $n_B \leq 6$	1.56	1.45	1.36	1.28	1.20	1.14	1.08	1.03	0.98	0.94	0.90	0.86	0.83	0.76	0.70	0.64	0.60	0.58	0.56	0.54	0.52	0.51	0.49		
		3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3		
		1.56	1.45	1.36	1.28	1.20	1.14	1.08	1.03	0.98	0.94	0.90	0.86	0.83	0.80	0.77	0.74	0.71	0.69	0.56	0.54	0.53	0.51	0.50		
		6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	5	5	5	5	5		
We,10	Colour group II $n_A \leq 4$ We,1 $n_B \leq 6$	1.56	1.45	1.36	1.28	1.20	1.11	0.95	0.86	0.82	0.78	0.75	0.72	0.69	0.66	0.60	0.55	0.51	0.47	0.45	0.43	0.42	0.41	0.40		
		3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3		
		1.56	1.45	1.36	1.28	1.20	1.14	1.08	1.03	0.82	0.78	0.75	0.72	0.69	0.66	0.64	0.62	0.60	0.58	0.56	0.54	0.42	0.41	0.40		
		6	6	6	6	6	6	6	6	6	5	5	5	5	5	5	5	5	5	5	5	5	4	4	4	
We,10	Colour group III $n_A \leq 4$ We,1 $n_B \leq 6$	1.30	1.21	1.13	0.94	0.80	0.76	0.72	0.68	0.65	0.62	0.54	0.47	0.41	0.40	0.38	0.37	0.36	0.34	0.31	0.29	0.27	0.25	0.23		
		3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	
		1.30	1.21	1.13	1.06	1.00	0.76	0.72	0.68	0.65	0.62	0.60	0.57	0.55	0.53	0.51	0.37	0.36	0.35	0.34	0.32	0.32	0.31	0.30		
		5	5	5	5	5	4	4	4	4	4	4	4	4	4	4	4	3	3	3	3	3	3	3	3	

Four-span element, allowable wind suction load										allow. w_s [kN/m ²]														
Span L[m]		3.50	3.75	4.00	4.25	4.50	4.75	5.00	5.25	5.50	5.75	6.00	6.25	6.50	6.75	7.00	7.25	7.50	7.75	8.00	8.25	8.50	8.75	9.00
We,10	Colour group I $n_A \leq 4$ We,1 $n_B \leq 6$	1.56	1.46	1.36	1.28	1.20	1.14	1.08	1.02	0.97	0.93	0.89	0.85	0.81	0.74	0.67	0.62	0.59	0.57	0.55	0.53	0.52	0.50	0.49
		3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
		1.56	1.46	1.36	1.28	1.20	1.14	1.08	1.02	0.97	0.93	0.89	0.85	0.82	0.79	0.76	0.73	0.70	0.57	0.55	0.53	0.52	0.50	0.49
		6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	5	5	5	5	5	5
We,10	Colour group II $n_A \leq 4$ We,1 $n_B \leq 6$	1.56	1.46	1.36	1.28	1.20	1.10	0.94	0.85	0.81	0.77	0.74	0.71	0.68	0.63	0.57	0.52	0.48	0.45	0.44	0.43	0.41	0.40	0.39
		3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
		1.56	1.46	1.36	1.28	1.20	1.13	1.07	1.02	0.81	0.77	0.74	0.71	0.68	0.65	0.63	0.61	0.59	0.57	0.55	0.43	0.41	0.40	0.39
		6	6	6	6	6	6	6	6	6	5	5	5	5	5	5	5	5	5	5	5	4	4	4
We,10	Colour group III $n_A \leq 4$ We,1 $n_B \leq 6$	1.30	1.09	0.92	0.85	0.80	0.76	0.72	0.68	0.65	0.60	0.52	0.45	0.41	0.39	0.38	0.36	0.34	0.30	0.27	0.25	0.23	0.21	0.19
		3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
		1.30	1.21	1.13	1.06	1.00	0.76	0.72	0.68	0.65	0.62	0.59	0.57	0.54	0.52	0.38	0.36	0.35	0.34	0.33	0.32	0.31	0.30	0.29
		5	5	5	5	5	4	4	4	4	4	4	4	4	4	4	3	3	3	3	3	3	3	3

Load tables for preliminary design of buildings with normal internal temperatures
(not valid for cold stores or chillrooms)



Type of fixing



End support:

screws with washer $d \geq 16$ mm
characteristic tensile force "pull through the sheet" $F_{z,k}(b_A) = 2.3$ kN/screw

Intermediate support:

screws with washer $d \geq 16$ mm
characteristic tensile force "pull through the sheet" $F_{z,k}(b_B) = 2.3$ kN/screw

The verification "pull out of the substructure" must be calculated separately!

Line b_A : Minimum end support width b_A in [mm] for the relevant wind-pressure load.

Line b_B : Minimum intermediate support width b_B in [mm] for the relevant wind-pressure load.

Line n_A : Number of screws per module width at the end support b_A for the relevant wind-suction load.

Line n_B : Number of screws per module width at the intermediate support b_B for the relevant wind-suction load.

Line $W_{e,10}$: Allowable wind pressure/suction load in [kN/m²] in consideration of the panel design with a deflection restriction $\max f \leq L/100$.

Line $W_{e,1}$: Allowable wind suction load in [kN/m²] in consideration of the fastener design.

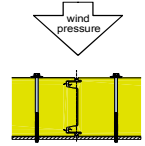
Colour group I, II, III: The following temperature differences between the cover sheets have been taken into consideration for secondary loads in the cover sheets, in accordance with the general approval issued by the building inspection authorities:

Season	Colour Group	t_{indoor}	$t_{\text{outdoor}} - t_{\text{indoor}}$
summer	I / II / III	25°C	+30 / +40 / +55 °C
winter	all	20°C	-40 °C

The tables do not replace the structural analysis required for execution of the constructional work. The allowable wind loads are specified in [kN/m²] and have been determined in accordance with the provisions of official approval no. Z-10.4-428 issued by the German building inspection authorities. The load tables contain both load and material safety factors.

Please note the maximum length supplied, especially in the case of multi-span elements.

Load tables for wind pressure



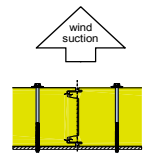
Single-span element, allowable wind pressure load allow. w_p [kN/m ²]																							
Span L[m]	3.50	3.75	4.00	4.25	4.50	4.75	5.00	5.25	5.50	5.75	6.00	6.25	6.50	6.75	7.00	7.25	7.50	7.75	8.00	8.25	8.50	8.75	9.00
$b_A = 40$ [mm]	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40
$W_{e,10}$	1.35	1.26	1.18	1.11	1.05	0.99	0.94	0.90	0.86	0.82	0.79	0.75	0.73	0.70	0.67	0.65	0.63	0.61	0.59	0.57	0.55	0.54	0.52
$b_A \leq 60$ [mm]	60	60	60	60	60	60	60	60	60	60	60	60	59	57	55	53	51	49	48	46	45	44	42
$W_{e,10}$	2.02	1.89	1.77	1.67	1.57	1.49	1.41	1.35	1.29	1.23	1.18	1.13	1.07	0.99	0.92	0.86	0.80	0.75	0.71	0.66	0.63	0.59	0.56
$b_A \leq 80$ [mm]	80	80	80	80	80	80	77	73	70	67	64	61	59	57	55	53	51	49	48	46	45	44	42
$W_{e,10}$	2.70	2.51	2.36	2.22	2.09	1.99	1.80	1.64	1.49	1.36	1.25	1.15	1.07	0.99	0.92	0.86	0.80	0.75	0.71	0.66	0.63	0.59	0.56

Two-span element, allowable wind pressure load											allow. w_p [kN/m ²]												
Span L[m]	3.50	3.75	4.00	4.25	4.50	4.75	5.00	5.25	5.50	5.75	6.00	6.25	6.50	6.75	7.00	7.25	7.50	7.75	8.00	8.25	8.50	8.75	9.00
$b_A = 40$ [mm]	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40
$W_{e,10}$	0.82	0.76	0.71	0.67	0.64	0.61	0.58	0.55	0.53	0.51	0.49	0.48	0.46	0.45	0.43	0.42	0.41	0.40	0.39	0.38	0.37	0.36	0.35
$b_B = 60$ [mm]	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60
$b_A \leq 60$ [mm]	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40
$W_{e,10}$	1.26	1.16	1.09	1.02	0.96	0.91	0.87	0.83	0.79	0.76	0.73	0.71	0.68	0.66	0.64	0.62	0.60	0.58	0.53	0.49	0.45	0.42	0.39
$b_B \leq 80$ [mm]	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	76	73	69	67	64
$b_A \leq 80$ [mm]	62	62	62	63	63	62	62	62	63	63	61	57	53	49	46	43	40	40	40	40	40	40	40
$W_{e,10}$	2.10	1.97	1.84	1.73	1.64	1.55	1.47	1.40	1.34	1.28	1.21	1.07	0.95	0.85	0.77	0.70	0.63	0.58	0.53	0.49	0.45	0.42	0.39
$b_B \leq 125$ [mm]	125	125	125	125	125	125	125	125	125	125	123	113	105	98	93	88	83	80	76	73	69	67	64

Three-span element, allowable wind pressure load allow. w_p [kN/m ²]																							
Span L[m]	3.50	3.75	4.00	4.25	4.50	4.75	5.00	5.25	5.50	5.75	6.00	6.25	6.50	6.75	7.00	7.25	7.50	7.75	8.00	8.25	8.50	8.75	9.00
$b_A = 40$ [mm]	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40
$W_{e,10}$	1.01	0.94	0.88	0.83	0.79	0.74	0.71	0.67	0.64	0.62	0.59	0.57	0.54	0.52	0.51	0.49	0.47	0.46	0.44	0.43	0.42	0.40	0.39
$b_B = 60$ [mm]	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60
$b_A \leq 60$ [mm]	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40
$W_{e,10}$	1.35	1.26	1.18	1.11	1.05	0.99	0.94	0.90	0.86	0.82	0.79	0.75	0.73	0.70	0.67	0.65	0.63	0.61	0.59	0.57	0.55	0.54	0.52
$b_B \leq 80$ [mm]	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80
$b_A \leq 80$ [mm]	63	62	63	62	62	63	62	62	63	63	62	61	59	57	55	53	51	49	47	46	44	42	41
$W_{e,10}$	2.11	1.97	1.84	1.73	1.64	1.55	1.47	1.40	1.34	1.28	1.23	1.15	1.07	0.99	0.92	0.86	0.80	0.75	0.70	0.65	0.61	0.57	0.54
$b_B \leq 125$ [mm]	125	125	125	125	125	125	125	125	125	125	125	122	118	113	109	106	102	99	95	91	88	85	82

Four-span element, allowable wind pressure load											allow. w_p [kN/m ²]												
Span L[m]	3.50	3.75	4.00	4.25	4.50	4.75	5.00	5.25	5.50	5.75	6.00	6.25	6.50	6.75	7.00	7.25	7.50	7.75	8.00	8.25	8.50	8.75	9.00
$b_A = 40$ [mm]	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40
$W_{e,10}$	1.01	0.94	0.88	0.83	0.79	0.74	0.71	0.67	0.64	0.62	0.59	0.57	0.54	0.52	0.51	0.49	0.47	0.46	0.44	0.43	0.42	0.40	0.39
$b_B = 60$ [mm]	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60
$b_A \leq 60$ [mm]	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40
$W_{e,10}$	1.35	1.26	1.18	1.11	1.05	0.99	0.94	0.90	0.86	0.82	0.79	0.75	0.73	0.70	0.67	0.65	0.63	0.61	0.59	0.57	0.55	0.54	0.51
$b_B \leq 80$ [mm]	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	78
$b_A \leq 80$ [mm]	63	63	63	63	62	62	62	62	63	63	62	61	59	57	55	52	50	48	46	44	42	40	40
$W_{e,10}$	2.11	1.97	1.84	1.73	1.64	1.55	1.47	1.40	1.34	1.28	1.23	1.16	1.07	0.99	0.92	0.85	0.79	0.73	0.67	0.63	0.58	0.54	0.51
$b_B \leq 125$ [mm]	125	125	125	125	125	125	125	125	125	125	125	123	118	113	109	105	100	95	91	87	84	81	78

Load tables for wind suction



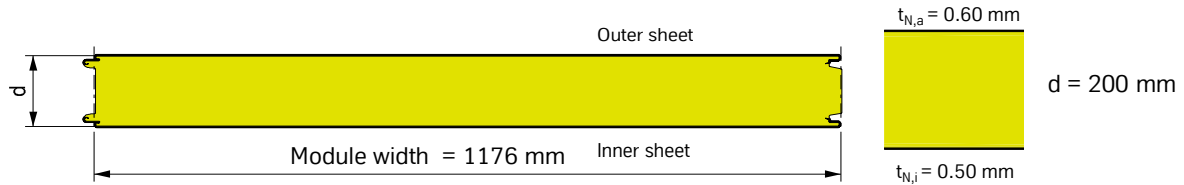
Single-span element, allowable wind suction load											allow. w_s [kN/m ²]														
Span L[m]		3.50	3.75	4.00	4.25	4.50	4.75	5.00	5.25	5.50	5.75	6.00	6.25	6.50	6.75	7.00	7.25	7.50	7.75	8.00	8.25	8.50	8.75	9.00	
We,10	Colour group I-III	3.35	3.01	2.64	2.34	2.09	1.87	1.69	1.53	1.39	1.28	1.17	1.08	1.00	0.93	0.86	0.80	0.75	0.70	0.66	0.62	0.58	0.55	0.52	
$n_A = 3$		3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	
We,1		1.68	1.56	1.47	1.38	1.30	1.24	1.17	1.12	1.07	1.02	0.98	0.94	0.90	0.87	0.84	0.81	0.78	0.76	0.73	0.71	0.69	0.67	0.65	
$n_A = 6$		6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6
We,1		3.35	3.13	2.93	2.76	2.61	2.47	2.35	2.24	2.13	2.04	1.96	1.88	1.81	1.74	1.68	1.62	1.56	1.51	1.47	1.42	1.38	1.34	1.30	

Two-span element, allowable wind suction load allow. w_s [kN/m ²]																								
Span L[m]		3.50	3.75	4.00	4.25	4.50	4.75	5.00	5.25	5.50	5.75	6.00	6.25	6.50	6.75	7.00	7.25	7.50	7.75	8.00	8.25	8.50	8.75	9.00
We,10	Colour group I	1.49	1.38	1.28	1.20	1.12	1.06	1.00	0.95	0.90	0.86	0.82	0.78	0.68	0.60	0.58	0.56	0.54	0.52	0.50	0.48	0.44	0.41	0.38
$n_A \leq 4$		3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
We,1 $n_B \leq 6$		1.49 6	1.38 6	1.28 6	1.20 6	1.12 6	1.06 6	1.00 6	0.95 6	0.90 6	0.86 6	0.82 6	0.79 6	0.75 6	0.72 6	0.70 6	0.56 5	0.54 5	0.52 5	0.50 5	0.49 5	0.47 5	0.46 5	0.45 5
We,10	Colour group II	1.49	1.38	1.28	1.20	1.12	1.06	0.94	0.79	0.75	0.72	0.69	0.61	0.52	0.48	0.46	0.45	0.43	0.42	0.40	0.36	0.33	0.30	0.27
$n_A \leq 4$		3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
We,1 $n_B \leq 6$		1.49 6	1.38 6	1.28 6	1.20 6	1.12 6	1.06 6	1.00 6	0.95 6	0.75 5	0.72 5	0.69 5	0.66 5	0.63 5	0.60 5	0.46 4	0.45 4	0.43 4	0.42 4	0.40 4	0.39 4	0.38 4	0.37 4	0.36 4
We,10	Colour group III	1.49	1.38	1.07	1.00	0.90	0.71	0.67	0.63	0.52	0.39	0.30	0.30	0.27	0.21									
$n_A \leq 4$		3	3	3	3	3	3	3	3	3	3	3	3	3	3									
We,1 $n_B \leq 6$		1.49 6	1.38 6	1.28 6	1.00 5	0.94 5	0.88 5	0.67 4	0.63 4	0.60 4	0.57 4	0.55 4	0.30 3	0.30 3	0.30 3									

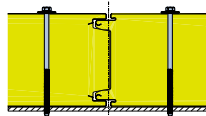
Three-span element, allowable wind suction load											allow. w_s [kN/m ²]													
Span L[m]		3.50	3.75	4.00	4.25	4.50	4.75	5.00	5.25	5.50	5.75	6.00	6.25	6.50	6.75	7.00	7.25	7.50	7.75	8.00	8.25	8.50	8.75	9.00
We,10	Colour group I	1.56	1.45	1.36	1.28	1.21	1.14	1.08	1.03	0.98	0.94	0.90	0.86	0.83	0.76	0.70	0.64	0.60	0.58	0.56	0.54	0.53	0.51	0.50
$n_A \leq 4$		4	4	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
We,1		1.56	1.46	1.36	1.28	1.21	1.14	1.08	1.03	0.98	0.94	0.90	0.86	0.83	0.80	0.77	0.74	0.72	0.69	0.56	0.54	0.53	0.51	0.50
$n_B \leq 6$		6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	5	5	5	5	5
We,10	Colour group II	1.56	1.45	1.36	1.28	1.21	1.10	0.92	0.86	0.82	0.78	0.75	0.72	0.69	0.63	0.57	0.52	0.48	0.46	0.45	0.43	0.42	0.41	0.40
$n_A \leq 4$		4	4	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
We,1		1.56	1.46	1.36	1.28	1.21	1.14	1.08	1.03	0.82	0.78	0.75	0.72	0.69	0.66	0.64	0.62	0.60	0.58	0.56	0.43	0.42	0.41	0.40
$n_B \leq 6$		6	6	6	6	6	6	6	6	5	5	5	5	5	5	5	5	5	5	5	4	4	4	4
We,10	Colour group III	1.30	1.21	1.13	0.89	0.80	0.76	0.72	0.69	0.63	0.53	0.45	0.43	0.41	0.40	0.38	0.34	0.30	0.27	0.25	0.22	0.20	0.19	
$n_A \leq 4$		3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	
We,1		1.30	1.21	1.13	1.07	1.00	0.76	0.72	0.69	0.65	0.62	0.60	0.57	0.55	0.40	0.38	0.37	0.36	0.35	0.34	0.32	0.32	0.31	
$n_B \leq 6$		5	5	5	5	5	4	4	4	4	4	4	4	4	3	3	3	3	3	3	3	3	3	

Four-span element, allowable wind suction load allow. w_s [kN/m ²]																									
Span L[m]		3.50	3.75	4.00	4.25	4.50	4.75	5.00	5.25	5.50	5.75	6.00	6.25	6.50	6.75	7.00	7.25	7.50	7.75	8.00	8.25	8.50	8.75	9.00	
We,10	Colour group I	1.57	1.46	1.37	1.28	1.21	1.14	1.08	1.03	0.98	0.93	0.89	0.85	0.82	0.75	0.68	0.62	0.59	0.57	0.55	0.53	0.52	0.50	0.49	
$n_A \leq 4$		4	4	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	
We,1		1.57	1.46	1.37	1.28	1.21	1.14	1.08	1.03	0.98	0.93	0.89	0.86	0.82	0.79	0.76	0.73	0.71	0.57	0.55	0.53	0.52	0.50	0.49	
$n_B \leq 6$		6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	5	5	5	5	5	5	5
We,10	Colour group II	1.57	1.46	1.37	1.28	1.13	1.01	0.91	0.86	0.81	0.78	0.74	0.71	0.68	0.61	0.55	0.50	0.47	0.46	0.44	0.43	0.41	0.40	0.39	
$n_A \leq 4$		4	4	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	
We,1		1.57	1.46	1.37	1.28	1.21	1.14	1.08	1.03	0.81	0.78	0.74	0.71	0.68	0.66	0.63	0.61	0.59	0.57	0.44	0.43	0.41	0.40	0.39	
$n_B \leq 6$		6	6	6	6	6	6	6	6	5	5	5	5	5	5	5	5	5	5	4	4	4	4	4	
We,10	Colour group III	1.05	0.98	0.91	0.85	0.80	0.76	0.72	0.68	0.63	0.52	0.45	0.43	0.41	0.39	0.35	0.31	0.27	0.24	0.21	0.19				
$n_A \leq 4$		3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3				
We,1		1.31	1.22	0.91	0.85	0.81	0.76	0.72	0.68	0.65	0.62	0.59	0.57	0.41	0.39	0.38	0.37	0.35	0.34	0.33	0.32				
$n_B \leq 6$		5	5	4	4	4	4	4	4	4	4	4	4	3	3	3	3	3	3	3	3				

Load tables for preliminary design of buildings with normal internal temperatures
(not valid for cold stores or chillrooms)



Type of fixing



End support:

screws with washer $d \geq 16$ mm
characteristic tensile force "pull through the sheet" $F_{z,k}(b_A) = 2.3$ kN/screw

Intermediate support:

screws with washer $d \geq 16$ mm
characteristic tensile force "pull through the sheet" $F_{z,k}(b_B) = 2.3$ kN/screw

The verification "pull out of the substructure" must be calculated separately!

Line b_A : Minimum end support width b_A in [mm] for the relevant wind-pressure load.

Line b_B : Minimum intermediate support width b_B in [mm] for the relevant wind-pressure load.

Line n_A : Number of screws per module width at the end support b_A for the relevant wind-suction load.

Line n_B : Number of screws per module width at the intermediate support b_B for the relevant wind-suction load.

Line $W_{e,10}$: Allowable wind pressure/suction load in [kN/m²] in consideration of the panel design with a deflection restriction $\max f \leq L/100$.

Line $W_{e,1}$: Allowable wind suction load in [kN/m²] in consideration of the fastener design.

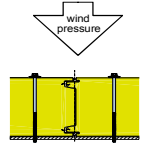
Colour group I, II, III: The following temperature differences between the cover sheets have been taken into consideration for secondary loads in the cover sheets, in accordance with the general approval issued by the building inspection authorities:

Season	Colour Group	t_{indoor}	$t_{\text{outdoor}} - t_{\text{indoor}}$
summer	I / II / III	25°C	+30 / +40 / +55 °C
winter	all	20°C	-40 °C

The tables do not replace the structural analysis required for execution of the constructional work. The allowable wind loads are specified in [kN/m²] and have been determined in accordance with the provisions of official approval no. Z-10.4-428 issued by the German building inspection authorities. The load tables contain both load and material safety factors.

Please note the maximum length supplied, especially in the case of multi-span elements.

Load tables for wind pressure



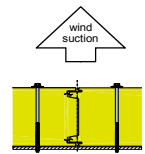
Single-span element, allowable wind pressure load allow. w_p [kN/m ²]																							
Span L[m]	3.50	3.75	4.00	4.25	4.50	4.75	5.00	5.25	5.50	5.75	6.00	6.25	6.50	6.75	7.00	7.25	7.50	7.75	8.00	8.25	8.50	8.75	9.00
$b_A = 40$ [mm]	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40
$W_{e,10}$	1.35	1.26	1.18	1.11	1.05	0.99	0.94	0.90	0.86	0.82	0.79	0.75	0.73	0.70	0.67	0.65	0.63	0.61	0.59	0.57	0.55	0.54	0.52
$b_A \leq 60$ [mm]	60	60	60	60	60	60	60	60	60	60	60	60	60	60	57	55	54	52	50	49	47	46	45
$W_{e,10}$	2.02	1.89	1.77	1.67	1.57	1.49	1.41	1.35	1.29	1.23	1.18	1.13	1.09	1.04	0.97	0.90	0.84	0.79	0.74	0.70	0.66	0.62	0.59
$b_A \leq 80$ [mm]	80	80	80	80	80	80	80	77	73	70	67	64	62	60	57	55	54	52	50	49	47	46	45
$W_{e,10}$	2.70	2.51	2.36	2.22	2.09	1.99	1.89	1.72	1.57	1.44	1.32	1.21	1.12	1.04	0.97	0.90	0.84	0.79	0.74	0.70	0.66	0.62	0.59

Two-span element, allowable wind pressure load allow. w_p [kN/m ²]																							
Span L[m]	3.50	3.75	4.00	4.25	4.50	4.75	5.00	5.25	5.50	5.75	6.00	6.25	6.50	6.75	7.00	7.25	7.50	7.75	8.00	8.25	8.50	8.75	9.00
$b_A = 40$ [mm]	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40
$W_{e,10}$	0.83	0.76	0.71	0.67	0.63	0.59	0.56	0.54	0.52	0.50	0.48	0.46	0.45	0.43	0.42	0.41	0.40	0.39	0.38	0.37	0.36	0.35	0.34
$b_B = 60$ [mm]	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60
$b_A \leq 60$ [mm]	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40
$W_{e,10}$	1.27	1.17	1.09	1.02	0.96	0.91	0.86	0.82	0.78	0.75	0.72	0.69	0.67	0.65	0.63	0.61	0.59	0.57	0.53	0.48	0.44	0.40	0.37
$b_B \leq 80$ [mm]	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	77	73	70	67	64
$b_A \leq 80$ [mm]	63	62	62	63	62	63	63	62	63	63	63	61	55	51	47	44	41	40	40	40	40	40	40
$W_{e,10}$	2.11	1.96	1.84	1.73	1.64	1.55	1.47	1.40	1.34	1.28	1.23	1.14	1.00	0.89	0.79	0.71	0.64	0.58	0.53	0.48	0.44	0.40	0.37
$b_B \leq 125$ [mm]	125	125	125	125	125	125	125	125	125	125	125	121	111	103	96	91	86	81	77	73	70	67	64

Three-span element, allowable wind pressure load allow. w_p [kN/m ²]																							
Span L[m]	3.50	3.75	4.00	4.25	4.50	4.75	5.00	5.25	5.50	5.75	6.00	6.25	6.50	6.75	7.00	7.25	7.50	7.75	8.00	8.25	8.50	8.75	9.00
$b_A = 40$ [mm]	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40
$W_{e,10}$	1.01	0.94	0.88	0.83	0.79	0.74	0.71	0.67	0.64	0.62	0.59	0.57	0.54	0.52	0.51	0.49	0.47	0.46	0.44	0.43	0.42	0.40	0.39
$b_B = 60$ [mm]	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60
$b_A \leq 60$ [mm]	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40
$W_{e,10}$	1.35	1.26	1.18	1.11	1.05	0.99	0.94	0.90	0.86	0.82	0.79	0.75	0.73	0.70	0.67	0.65	0.63	0.61	0.59	0.57	0.55	0.54	0.51
$b_B \leq 80$ [mm]	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	78
$b_A \leq 80$ [mm]	63	63	63	62	62	62	62	63	63	62	63	63	62	58	55	52	50	47	46	44	42	40	40
$W_{e,10}$	2.11	1.97	1.84	1.73	1.64	1.55	1.47	1.41	1.34	1.28	1.23	1.18	1.12	1.02	0.93	0.85	0.79	0.72	0.67	0.62	0.58	0.54	0.51
$b_B \leq 125$ [mm]	125	125	125	125	125	125	125	125	125	125	125	125	123	117	110	105	100	95	91	87	84	81	78

Four-span element, allowable wind pressure load											allow. w_p [kN/m ²]													
Span L[m]	3.50	3.75	4.00	4.25	4.50	4.75	5.00	5.25	5.50	5.75	6.00	6.25	6.50	6.75	7.00	7.25	7.50	7.75	8.00	8.25	8.50	8.75	9.00	
$b_A = 40$ [mm]	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	
$W_{e,10}$	1.01	0.94	0.88	0.83	0.79	0.74	0.71	0.67	0.64	0.62	0.59	0.57	0.54	0.52	0.51	0.49	0.47	0.46	0.44	0.43	0.42	0.40	0.39	
$b_B = 60$ [mm]	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	
$b_A \leq 60$ [mm]	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	
$W_{e,10}$	1.35	1.26	1.18	1.11	1.05	0.99	0.94	0.90	0.86	0.82	0.79	0.75	0.73	0.70	0.67	0.65	0.63	0.61	0.59	0.57	0.55	0.52	0.49	
$b_B \leq 80$ [mm]	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	78	75	
$b_A \leq 80$ [mm]	62	63	62	62	62	63	63	62	63	62	63	63	61	58	54	52	49	46	44	42	41	40	40	
$W_{e,10}$	2.11	1.97	1.84	1.73	1.64	1.55	1.48	1.40	1.34	1.28	1.23	1.18	1.11	1.01	0.92	0.84	0.77	0.71	0.65	0.61	0.56	0.52	0.49	
$b_B \leq 125$ [mm]	125	125	125	125	125	125	125	125	125	125	125	125	123	115	109	103	98	93	89	85	81	78	75	

Load tables for wind suction



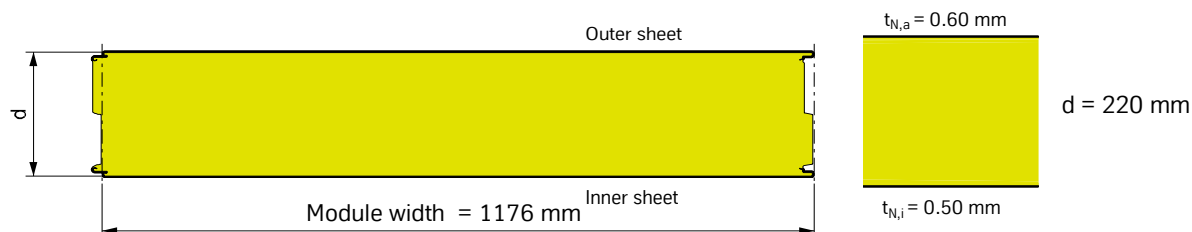
Single-span element, allowable wind suction load											allow. w_s [kN/m ²]														
Span L[m]		3.50	3.75	4.00	4.25	4.50	4.75	5.00	5.25	5.50	5.75	6.00	6.25	6.50	6.75	7.00	7.25	7.50	7.75	8.00	8.25	8.50	8.75	9.00	
We,10	Colour group I-III	3.35	3.13	2.77	2.45	2.19	1.96	1.77	1.61	1.46	1.34	1.23	1.13	1.05	0.97	0.90	0.84	0.79	0.74	0.69	0.65	0.61	0.58	0.55	
$n_A = 3$		3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	
We,1		1.68	1.56	1.47	1.38	1.30	1.24	1.17	1.12	1.07	1.02	0.98	0.94	0.90	0.87	0.84	0.81	0.78	0.76	0.73	0.71	0.69	0.67	0.65	
$n_A = 6$		6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6
We,1		3.35	3.13	2.93	2.76	2.61	2.47	2.35	2.24	2.13	2.04	1.96	1.88	1.81	1.74	1.68	1.62	1.56	1.51	1.47	1.42	1.38	1.34	1.30	

Two-span element, allowable wind suction load allow. w_s [kN/m ²]																								
Span L[m]		3.50	3.75	4.00	4.25	4.50	4.75	5.00	5.25	5.50	5.75	6.00	6.25	6.50	6.75	7.00	7.25	7.50	7.75	8.00	8.25	8.50	8.75	9.00
We,10	Colour group I $n_A \leq 4$ We,1 $n_B \leq 6$	1.51	1.40	1.30	1.22	1.14	1.08	1.02	0.96	0.91	0.87	0.83	0.80	0.71	0.61	0.59	0.56	0.54	0.53	0.51	0.47	0.43	0.39	0.36
3		3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	
1.51		1.40	1.30	1.22	1.14	1.08	1.02	0.96	0.91	0.87	0.83	0.80	0.76	0.73	0.70	0.56	0.54	0.53	0.51	0.49	0.48	0.46	0.45	
6		6	6	6	6	6	6	6	6	6	6	6	6	6	6	5	5	5	5	5	5	5	5	5
We,10	Colour group II $n_A \leq 4$ We,1 $n_B \leq 6$	1.51	1.40	1.30	1.22	1.14	1.08	1.02	0.81	0.76	0.73	0.69	0.62	0.51	0.49	0.47	0.45	0.44	0.41	0.36	0.32	0.29	0.28	0.27
3		3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	
1.51		1.40	1.30	1.22	1.14	1.08	1.02	0.96	0.76	0.73	0.69	0.66	0.64	0.61	0.47	0.45	0.44	0.42	0.41	0.39	0.38	0.37	0.27	
6		6	6	6	6	6	6	6	5	5	5	5	5	5	5	4	4	4	4	4	4	4	4	3
We,10	Colour group III $n_A \leq 4$ We,1 $n_B \leq 6$	1.51	1.40	1.23	1.01	0.95	0.72	0.68	0.64	0.52	0.35	0.23	0.23											
3		3	3	3	3	3	3	3	3	3	3	3	3											
1.51		1.40	1.30	1.01	0.95	0.90	0.68	0.64	0.61	0.58	0.55	0.23												
6		6	6	5	5	5	4	4	4	4	4	3												

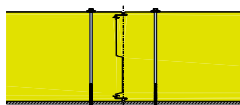
Three-span element, allowable wind suction load											allow. w_s [kN/m ²]														
Span L[m]		3.50	3.75	4.00	4.25	4.50	4.75	5.00	5.25	5.50	5.75	6.00	6.25	6.50	6.75	7.00	7.25	7.50	7.75	8.00	8.25	8.50	8.75	9.00	
We,10	Colour group I	1.57	1.46	1.37	1.28	1.21	1.15	1.09	1.03	0.98	0.94	0.90	0.86	0.79	0.71	0.64	0.62	0.60	0.58	0.56	0.54	0.53	0.51	0.50	
$n_A \leq 4$		4	4	4	4	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	
We,1		1.57	1.46	1.37	1.28	1.21	1.15	1.09	1.03	0.98	0.94	0.90	0.86	0.83	0.80	0.77	0.74	0.60	0.58	0.56	0.54	0.53	0.51	0.50	
$n_B \leq 6$		6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	5	5	5	5	5	5	5	5
We,10	Colour group II	1.57	1.46	1.37	1.28	1.21	1.02	0.90	0.86	0.82	0.78	0.75	0.68	0.60	0.53	0.51	0.50	0.48	0.46	0.45	0.43	0.42	0.41	0.39	
$n_A \leq 4$		4	4	4	4	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	
We,1		1.57	1.46	1.37	1.28	1.21	1.14	1.09	0.86	0.82	0.78	0.75	0.72	0.69	0.67	0.64	0.50	0.48	0.46	0.45	0.43	0.42	0.41	0.40	
$n_B \leq 6$		6	6	6	6	6	6	6	5	5	5	5	5	5	5	5	4	4	4	4	4	4	4	4	
We,10	Colour group III	1.31	1.22	1.11	0.86	0.81	0.76	0.72	0.56	0.49	0.47	0.45	0.37	0.30	0.25	0.20									
$n_A \leq 4$		3	3	3	3	3	3	3	3	3	3	3	3	3	3	3									
We,1		1.31	1.22	1.14	1.07	0.81	0.76	0.72	0.69	0.66	0.47	0.45	0.43	0.41	0.40	0.38									
$n_B \leq 6$		5	5	5	5	4	4	4	4	4	3	3	3	3	3	3									

Four-span element, allowable wind suction load allow. w_s [kN/m ²]																								
Span L[m]		3.50	3.75	4.00	4.25	4.50	4.75	5.00	5.25	5.50	5.75	6.00	6.25	6.50	6.75	7.00	7.25	7.50	7.75	8.00	8.25	8.50	8.75	9.00
We,10	Colour group I	1.58	1.47	1.38	1.29	1.22	1.15	1.09	1.03	0.98	0.94	0.90	0.86	0.79	0.71	0.64	0.61	0.59	0.57	0.55	0.54	0.52	0.50	0.48
$n_A \leq 4$		4	4	4	4	4	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
We,1		1.58	1.47	1.38	1.29	1.22	1.15	1.09	1.03	0.99	0.94	0.90	0.86	0.83	0.79	0.76	0.74	0.59	0.57	0.55	0.54	0.52	0.50	0.49
$n_B \leq 6$		6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	5	5	5	5	5	5	5
We,10	Colour group II	1.58	1.43	1.15	1.08	1.01	0.96	0.91	0.86	0.82	0.78	0.75	0.68	0.59	0.53	0.51	0.49	0.47	0.46	0.44	0.43	0.42	0.39	0.36
$n_A \leq 4$		4	4	4	4	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
We,1		1.58	1.47	1.38	1.29	1.01	0.96	0.91	0.86	0.82	0.78	0.75	0.72	0.69	0.66	0.64	0.49	0.47	0.46	0.44	0.43	0.42	0.40	0.39
$n_B \leq 6$		6	6	6	6	5	5	5	5	5	5	5	5	5	5	5	5	4	4	4	4	4	4	4
We,10	Colour group III	1.06	0.98	0.92	0.77	0.63	0.57	0.54	0.52	0.49	0.47	0.45	0.37	0.30	0.24									
$n_A \leq 4$		3	3	3	3	3	3	3	3	3	3	3	3	3	3									
We,1		1.06	0.98	0.92	0.86	0.81	0.77	0.73	0.69	0.49	0.47	0.45	0.43	0.41	0.40									
$n_B \leq 6$		4	4	4	4	4	4	4	4	3	3	3	3	3	3									

Load tables for preliminary design of buildings with normal internal temperatures
(not valid for cold stores or chillrooms)



Type of fixing



End support:

screws with washer $d \geq 16$ mm
characteristic tensile force "pull through the sheet" $F_{z,k}(b_A) = 2.3$ kN/screw

Intermediate support:

screws with washer $d \geq 16$ mm
characteristic tensile force "pull through the sheet" $F_{z,k}(b_B) = 2.3$ kN/screw

The verification "pull out of the substructure" must be calculated separately!

Line b_A : Minimum end support width b_A in [mm] for the relevant wind-pressure load.

Line b_B : Minimum intermediate support width b_B in [mm] for the relevant wind-pressure load.

Line n_A : Number of screws per module width at the end support b_A for the relevant wind-suction load.

Line n_B : Number of screws per module width at the intermediate support b_B for the relevant wind-suction load.

Line $W_{e,10}$: Allowable wind pressure/suction load in [kN/m²] in consideration of the panel design with a deflection restriction $\max f \leq L/100$.

Line $W_{e,1}$: Allowable wind suction load in [kN/m²] in consideration of the fastener design.

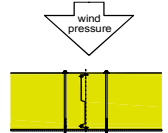
Colour group I, II, III: The following temperature differences between the cover sheets have been taken into consideration for secondary loads in the cover sheets, in accordance with the general approval issued by the building inspection authorities:

Season	Colour Group	t_{indoor}	$t_{\text{outdoor}} - t_{\text{indoor}}$
summer	I / II / III	25°C	+30 / +40 / +55 °C
winter	all	20°C	-40 °C

The tables do not replace the structural analysis required for execution of the constructional work. The allowable wind loads are specified in [kN/m²] and have been determined in accordance with the provisions of official approval no. Z-10.4-428 issued by the German building inspection authorities. The load tables contain both load and material safety factors.

Please note the maximum length supplied, especially in the case of multi-span elements.

Load tables for wind pressure



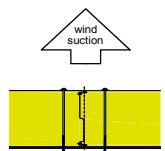
Single-span element, allowable wind pressure load allow. w_p [kN/m ²]																							
Span L[m]	3.50	3.75	4.00	4.25	4.50	4.75	5.00	5.25	5.50	5.75	6.00	6.25	6.50	6.75	7.00	7.25	7.50	7.75	8.00	8.25	8.50	8.75	9.00
$b_A = 40$ [mm]	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40
$W_{e,10}$	1.35	1.26	1.18	1.11	1.05	0.99	0.94	0.90	0.86	0.82	0.79	0.75	0.73	0.70	0.67	0.65	0.63	0.61	0.59	0.57	0.55	0.54	0.52
$b_A \leq 60$ [mm]	60	60	60	60	60	60	60	60	60	60	60	60	60	60	58	56	54	52	51	49	48	46	45
$W_{e,10}$	2.02	1.89	1.77	1.67	1.57	1.49	1.41	1.35	1.29	1.23	1.18	1.13	1.09	1.05	0.98	0.91	0.85	0.80	0.75	0.70	0.66	0.63	0.59
$b_A \leq 80$ [mm]	80	80	80	80	80	80	80	77	74	71	68	65	62	60	58	56	54	52	51	49	48	46	45
$W_{e,10}$	2.70	2.51	2.36	2.22	2.09	1.99	1.89	1.74	1.58	1.45	1.33	1.23	1.13	1.05	0.98	0.91	0.85	0.80	0.75	0.70	0.66	0.63	0.59

Two-span element, allowable wind pressure load allow. w_p [kN/m ²]																							
Span L[m]	3.50	3.75	4.00	4.25	4.50	4.75	5.00	5.25	5.50	5.75	6.00	6.25	6.50	6.75	7.00	7.25	7.50	7.75	8.00	8.25	8.50	8.75	9.00
$b_A = 40$ [mm]	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40
$W_{e,10}$	0.84	0.77	0.72	0.67	0.63	0.59	0.56	0.54	0.51	0.49	0.47	0.46	0.44	0.42	0.41	0.40	0.39	0.38	0.37	0.36	0.35	0.34	0.33
$b_B = 60$ [mm]	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60
$b_A \leq 60$ [mm]	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40
$W_{e,10}$	1.29	1.19	1.10	1.03	0.96	0.91	0.86	0.82	0.78	0.75	0.72	0.69	0.66	0.64	0.62	0.60	0.58	0.56	0.51	0.46	0.42	0.38	0.35
$b_B \leq 80$ [mm]	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	76	71	68	64	62
$b_A \leq 80$ [mm]	62	63	63	63	63	63	62	62	63	63	62	62	56	51	47	43	40	40	40	40	40	40	40
$W_{e,10}$	2.11	1.97	1.84	1.74	1.64	1.55	1.47	1.40	1.34	1.28	1.23	1.17	1.02	0.89	0.79	0.70	0.63	0.56	0.51	0.46	0.42	0.38	0.35
$b_B \leq 125$ [mm]	125	125	125	125	125	125	125	125	125	125	125	124	112	104	96	90	85	80	76	71	68	64	62

Three-span element, allowable wind pressure load allow. w_p [kN/m ²]																							
Span L[m]	3.50	3.75	4.00	4.25	4.50	4.75	5.00	5.25	5.50	5.75	6.00	6.25	6.50	6.75	7.00	7.25	7.50	7.75	8.00	8.25	8.50	8.75	9.00
$b_A = 40$ [mm]	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40
$W_{e,10}$	1.01	0.94	0.88	0.83	0.79	0.74	0.71	0.67	0.64	0.62	0.59	0.57	0.54	0.52	0.51	0.49	0.47	0.46	0.44	0.43	0.42	0.40	0.39
$b_B = 60$ [mm]	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60
$b_A \leq 60$ [mm]	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40
$W_{e,10}$	1.35	1.26	1.18	1.11	1.05	0.99	0.94	0.90	0.86	0.82	0.79	0.75	0.73	0.70	0.67	0.65	0.63	0.61	0.59	0.57	0.54	0.50	0.47
$b_B \leq 80$ [mm]	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	78	74	72
$b_A \leq 80$ [mm]	62	62	63	63	63	62	62	62	62	62	63	62	59	56	52	49	47	45	42	41	40	40	40
$W_{e,10}$	2.11	1.97	1.84	1.73	1.64	1.55	1.47	1.40	1.34	1.28	1.23	1.18	1.07	0.97	0.88	0.80	0.74	0.68	0.63	0.58	0.54	0.50	0.47
$b_B \leq 125$ [mm]	125	125	125	125	125	125	125	125	125	125	125	125	118	111	105	99	94	89	85	81	78	74	72

Four-span element, allowable wind pressure load											allow. w_p [kN/m ²]													
Span L[m]	3.50	3.75	4.00	4.25	4.50	4.75	5.00	5.25	5.50	5.75	6.00	6.25	6.50	6.75	7.00	7.25	7.50	7.75	8.00	8.25	8.50	8.75	9.00	
$b_A = 40$ [mm]	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	
$W_{e,10}$	1.01	0.94	0.88	0.83	0.79	0.74	0.71	0.67	0.64	0.62	0.59	0.57	0.54	0.52	0.51	0.49	0.47	0.46	0.44	0.43	0.42	0.40	0.39	
$b_B = 60$ [mm]	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	
$b_A \leq 60$ [mm]	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	
$W_{e,10}$	1.35	1.26	1.18	1.11	1.05	0.99	0.94	0.90	0.86	0.82	0.79	0.75	0.73	0.70	0.67	0.65	0.63	0.61	0.59	0.57	0.53	0.49	0.45	
$b_B \leq 80$ [mm]	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	79	76	72	69	
$b_A \leq 80$ [mm]	62	62	62	63	62	63	63	62	62	63	63	62	59	55	52	49	46	44	42	40	40	40	40	
$W_{e,10}$	2.11	1.97	1.84	1.74	1.64	1.55	1.47	1.40	1.34	1.28	1.23	1.18	1.07	0.97	0.88	0.80	0.73	0.67	0.62	0.57	0.53	0.49	0.45	
$b_B \leq 125$ [mm]	125	125	125	125	125	125	125	125	125	125	125	125	118	111	104	98	93	88	83	79	76	72	69	

Load tables for wind suction



Single-span element, allowable wind suction load											allow. w_s [kN/m ²]																	
Span L[m]	3.50	3.75	4.00	4.25	4.50	4.75	5.00	5.25	5.50	5.75	6.00	6.25	6.50	6.75	7.00	7.25	7.50	7.75	8.00	8.25	8.50	8.75	9.00					
We,10	Colour group I-III	3.35	3.13	2.79	2.48	2.21	1.98	1.79	1.62	1.48	1.35	1.24	1.15	1.06	0.98	0.91	0.85	0.79	0.74	0.70	0.66	0.62	0.58	0.55				
$n_A = 3$		3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3				
We,1		1.68	1.56	1.47	1.38	1.30	1.24	1.17	1.12	1.07	1.02	0.98	0.94	0.90	0.87	0.84	0.81	0.78	0.76	0.73	0.71	0.69	0.67	0.65				
$n_A = 6$		6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6			
We,1		3.35	3.13	2.93	2.76	2.61	2.47	2.35	2.24	2.13	2.04	1.96	1.88	1.81	1.74	1.68	1.62	1.56	1.51	1.47	1.42	1.38	1.34	1.30				

Two-span element, allowable wind suction load allow. w_s [kN/m ²]																								
Span L[m]		3.50	3.75	4.00	4.25	4.50	4.75	5.00	5.25	5.50	5.75	6.00	6.25	6.50	6.75	7.00	7.25	7.50	7.75	8.00	8.25	8.50	8.75	9.00
We,10	Colour group I $n_A \leq 4$ We,1 $n_B \leq 6$	1.52	1.41	1.31	1.23	1.15	1.09	1.03	0.97	0.92	0.88	0.84	0.80	0.70	0.61	0.59	0.57	0.55	0.53	0.49	0.44	0.39	0.37	0.36
4		4	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	
1.52		1.41	1.31	1.23	1.15	1.09	1.03	0.97	0.92	0.88	0.84	0.80	0.77	0.74	0.59	0.57	0.55	0.53	0.51	0.49	0.48	0.46	0.36	
		6	6	6	6	6	6	6	6	6	6	6	6	6	6	5	5	5	5	5	5	5	5	4
We,10	Colour group II $n_A \leq 4$ We,1 $n_B \leq 6$	1.52	1.41	1.31	1.23	1.15	1.09	1.03	0.84	0.77	0.73	0.70	0.59	0.51	0.49	0.47	0.46	0.43	0.36	0.31	0.30	0.29	0.28	0.25
4		4	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	
1.52		1.41	1.31	1.23	1.15	1.09	1.03	0.97	0.77	0.73	0.70	0.67	0.64	0.49	0.47	0.46	0.44	0.42	0.41	0.40	0.29	0.28	0.27	
		6	6	6	6	6	6	6	6	5	5	5	5	5	5	4	4	4	4	4	4	3	3	3
We,10	Colour group III $n_A \leq 4$ We,1 $n_B \leq 6$	1.52	1.41	1.31	1.02	0.96	0.73	0.68	0.65	0.49	0.20	0.20												
4		4	3	3	3	3	3	3	3	3	3	3												
1.52		1.41	1.31	1.02	0.96	0.90	0.68	0.65	0.60	0.59	0.56													
		6	6	6	5	5	5	4	4	4	4	4												

Three-span element, allowable wind suction load											allow. w_s [kN/m ²]														
Span L[m]		3.50	3.75	4.00	4.25	4.50	4.75	5.00	5.25	5.50	5.75	6.00	6.25	6.50	6.75	7.00	7.25	7.50	7.75	8.00	8.25	8.50	8.75	9.00	
We,10	Colour group I	1.58	1.47	1.37	1.29	1.21	1.15	1.09	1.04	0.99	0.94	0.90	0.81	0.72	0.67	0.64	0.62	0.60	0.58	0.56	0.54	0.52	0.48	0.45	
$n_A \leq 4$		4	4	4	4	4	4	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	
We,1		1.58	1.47	1.37	1.29	1.21	1.15	1.09	1.04	0.99	0.94	0.90	0.87	0.83	0.80	0.64	0.62	0.60	0.58	0.56	0.54	0.53	0.51	0.50	
$n_B \leq 6$		6	6	6	6	6	6	6	6	6	6	6	6	6	6	5	5	5	5	5	5	5	5	5	5
We,10	Colour group II	1.58	1.47	1.37	1.29	1.18	0.96	0.91	0.86	0.82	0.78	0.66	0.58	0.55	0.53	0.51	0.50	0.48	0.46	0.44	0.40	0.37	0.34	0.31	
$n_A \leq 4$		4	4	4	4	4	4	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	
We,1		1.58	1.47	1.37	1.29	1.21	1.15	0.91	0.86	0.82	0.79	0.75	0.72	0.69	0.53	0.51	0.50	0.48	0.46	0.45	0.43	0.42	0.41	0.40	
$n_B \leq 6$		6	6	6	6	6	6	5	5	5	5	5	5	5	4	4	4	4	4	4	4	4	4	4	
We,10	Colour group III	1.31	1.22	0.94	0.86	0.81	0.77	0.54	0.52	0.48	0.35														
$n_A \leq 4$		3	3	3	3	3	3	3	3	3	3														
We,1		1.31	1.22	1.14	0.86	0.81	0.77	0.73	0.52	0.49	0.47														
$n_B \leq 6$		5	5	5	4	4	4	4	3	3	3														

Four-span element, allowable wind suction load allow. w_s [kN/m ²]																								
Span L[m]		3.50	3.75	4.00	4.25	4.50	4.75	5.00	5.25	5.50	5.75	6.00	6.25	6.50	6.75	7.00	7.25	7.50	7.75	8.00	8.25	8.50	8.75	9.00
We,10	Colour group I	1.59	1.48	1.38	1.30	1.22	1.15	1.09	1.04	0.99	0.94	0.86	0.79	0.72	0.66	0.64	0.62	0.60	0.58	0.56	0.54	0.51	0.47	0.43
$n_A \leq 4$		4	4	4	4	4	4	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
We,1		1.59	1.48	1.38	1.30	1.22	1.15	1.09	1.04	0.99	0.94	0.90	0.86	0.83	0.80	0.64	0.62	0.60	0.58	0.56	0.54	0.52	0.51	0.49
$n_B \leq 6$		6	6	6	6	6	6	6	6	6	6	6	6	6	6	5	5	5	5	5	5	5	5	5
We,10	Colour group II	1.49	1.23	1.15	1.08	1.02	0.96	0.91	0.80	0.72	0.64	0.60	0.58	0.55	0.53	0.51	0.49	0.48	0.46	0.43	0.39	0.35	0.32	0.30
$n_A \leq 4$		4	4	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
We,1		1.59	1.48	1.15	1.08	1.02	0.96	0.91	0.87	0.82	0.79	0.75	0.72	0.69	0.53	0.51	0.49	0.48	0.46	0.45	0.43	0.42	0.41	0.39
$n_B \leq 6$		6	6	5	5	5	5	5	5	5	5	5	5	5	4	4	4	4	4	4	4	4	4	4
We,10	Colour group III	1.06	0.78	0.69	0.65	0.53																		
$n_A \leq 4$		3	3	3	3	3																		
We,1		1.06	0.99	0.92	0.65	0.61																		
$n_B \leq 6$		4	4	4	3	3																		

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