

## **Sandwich panels**

### **Load tables for**

Ruukki SPB WE, Ruukki SP2D WE.

Ruukki panels, thanks to their high quality core and cladding materials, as well as an innovative bonding system, boast excellent durability, corrosion resistance, thermal insulation and mechanical properties. Our load tables enable quick and easy selection of panels suitable for a particular building. Our panels have been tested to conform to the highest class of insulation and sound absorption based on European standards. Thanks to our panels your buildings will be built to last.

### **Applications**

- production halls
- warehouses
- sports halls and arenas
- commercial buildings
- exhibition facilities
- office buildings
- administration buildings
- cold stores
- deep-freeze stores

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• **Table legend**

The data shown in tables apply to externally-facing linear profile and microprofiled wall panels and internally-facing linear profile wall panels.

The minimum support width is 40 mm for the end support and 60 mm for intermediate supports.

Other profiling options should be verified using TrayPan software available for download on [www.ruukki.pl](http://www.ruukki.pl).

The tables below have been developed according to principles set forth in PN-EN 14509:2010:

- ULS – ultimate limit state, should be verified against the design load;
- SLS – serviceability limit state, should be verified against the expected service load;
- ULS 2/0 – indicates the ultimate limit state determined for a single-span panel fixed with two fasteners at each end;
- ULS 3/0 – indicates the ultimate limit state determined for a single-span panel fixed with three fasteners at each end;
- ULS 2/3 – indicates the ultimate limit state determined for a double-span (multi-span) panel with two fasteners at each end and three fasteners at the intermediate support(s);
- ULS 2/4 – indicates the ultimate limit state determined for a double-span (multi-span) panel with two fasteners at each end and four fasteners at the intermediate support(s).
- SLS L/100 – indicates the serviceability limit state for the allowable deflection of an L-long span (where the length is expressed in mm) divided by 100, e.g. a panel with a length of 6000 mm mounted on a single span may deflect by 60 mm.
- SLS L/150 – indicates the serviceability limit state for the allowable deflection of an L-long span (where the length is expressed in mm) divided by 150, e.g. a panel with a length of 6000 mm mounted on a single span may deflect by 45 mm.

- SLS L/200 – indicates the serviceability limit state for the allowable deflection of an L-long span (where the length is expressed in mm) divided by 200, e.g. a panel with a length of 6000 mm mounted on a single span may deflect by 30 mm.
- SLS L/250 – indicates the serviceability limit state for the allowable deflection of an L-long span (where the length is expressed in mm) divided by 250, e.g. a panel with a length of 6000 mm mounted on a single span may deflect by 24 mm.

• **Colour groups**

The division of panels into colour groups shown in the table is connected with the influence of thermal load on cladding made of sandwich panels. When exposed to solar radiation steel façade cladding in dark colours absorbs more heat.

Due to a considerable difference between the temperature ( $\Delta t$ ) of the external cladding and the wall covering inside the building thermal stresses occur, affecting the performance of the sandwich panels used in the structure. This may result in the corrugation of the external surface or – in the worst case – the panel fixed to an intermediate support may be damaged.

The PN-EN 14509:2010 standard, describing the requirements for sandwich panels, introduced a division into three groups of colours: very light, light and dark. The value of temperature of the façade cladding is specified according to the colour group as follows: +55°C for very light colours, +65°C for light colours and +80°C for dark colours.

The ambient temperature inside the building used for the serviceability calculations was 20°C. In the summer, the façade cladding temperatures used were the maximum allowable temperatures specified for each colour group, whereas in the winter the assumed temperature was -20°C. Therefore, the calculations considered the following temperature gradients for each colour group:

• **Division into colour groups**

*Table 1*

<i>Colour group</i>	<i>Colours</i>
<b>Group I – very light colours</b>	RAL: 1015, 1016, 1018, 6019, 7035, 9001, 9002, 9010
<b>Group II – light colours</b>	RAL: 1002, 1003, 1004, 1014, 1017, 1019, 1021, 1023, 1035, 2000, 2003, 2004, 2008, 2009, 5012, 5018, 5024, 6018, 6021, 6033, 7000, 7037, 7040, 9006, 9022 RR: 20, 21, 24, 30, 40
<b>Group III – dark colours</b>	RAL: 3000, 3002, 3003, 3005, 3011, 3013, 5002, 5005, 5009, 5010, 5011, 5022, 6000, 6003, 6005, 6011, 6020, 6029, 7015, 7016, 7022, 7024, 8016, 8017, 8023, 9005, 9007 RR: 22, 23, 29, 34, 35, 36, 41, 288

- Group I –  $\Delta t = 40^{\circ}\text{C}$ ,
- Group II –  $\Delta t = 45^{\circ}\text{C}$ ,
- Group III –  $\Delta t = 60^{\circ}\text{C}$ ,

This complies with the requirements specified for sandwich panels in PN-EN 14509:2010 for our latitude.

- **Guidelines for the application of dark colour sandwich panels**

External wall cladding made of dark-coloured panels (Group III), due to the exposition to substantially greater thermal stresses than in the case of lighter colours may become deformed or lose the initial shape.

It is the designer's responsibility to take this fact into account in the design process and – in order to prevent damage – apply a solution that will meet all three requirements specified below:

1. Select the fixing method and static system according to the span tables,
2. Reduce the maximum length of the panels,
3. Consider the temperature at which the panels will be installed.

### 1. Static system and fixing method

Both in the case of wall and roof panels the installation system must be verified against the values shown in the load tables, i.e. the contemplated static system must meet the ULS and SLS criteria.

However, regardless of the selection of panel types according to the table values, it is recommended to install dark-coloured wall sandwich panels only in single-span systems.

Using dark panels in multi-span layouts may result in the occurrence of slight corrugation on the intermediate support due to greater thermal stresses. Although formally allowed by the product standard, the corrugation may cause the client or project owner to express reservations on aesthetic grounds and lead to a quality claim.

Ruukki does not guarantee homogeneous flatness of the surface of dark sandwich panels installed using multi-span systems, unless such applications have been approved in writing by a duly authorised representative of Ruukki.

### 2. Maximum panel length

The maximum installation length of Colour Group III wall panels is 9.5 m.

Dark-coloured panels with lengths exceeding the limit values shown above are not covered by the Ruukki guarantee, unless the relevant application has been approved in writing by a duly authorised representative of Ruukki.

### 3. Installation temperature

The installation of sandwich panels with dark-colour facing at low temperatures increases the effects of thermal load on the structure in warm seasons. Therefore, it is recommended to install such panels at ambient temperatures above  $10^{\circ}\text{C}$ .

Dark-coloured panels installed at temperatures below  $10^{\circ}\text{C}$  are not covered by the Ruukki guarantee, unless the relevant application has been approved in writing by a duly authorised representative of Ruukki.

- **Guidelines for the application of flat surface panels**

Sandwich panels with flat (smooth) facing may be installed using the single-span system only and only if this option is available in the TrayPan software.

The application of flat surface panels in other installation systems may result in undesirable visual defects, e.g. corrugation. The effects may be of a temporary nature, i.e. they may occur only in specific conditions (e.g. after a prolonged exposure to the sun) and although they do not affect the performance of the panel, the client or project owner may complain about the disturbed aesthetics of the façade.

The guarantee obligations of Ruukki Polska Sp. z o.o. do not apply to flat surface panels installed using multi-span systems, unless the relevant application has been approved in writing by a duly authorised representative of Ruukki.

● **Maximum allowable wind pressure [kN/m<sup>2</sup>] for the length of span made of Ruukki SPB80WE panels**

*Table 2*

External facing thickness: 0.60 mm  
 Internal facing thickness: 0.50 mm  
 External temperature: +55°C; +65°C; +80°C/-20°C (summer/winter)  
 Internal temperature: +20°C/+20°C (summer/winter)  
 Minimum end support width: 70 mm  
 Minimum intermediate support width: 140 mm  
 Minimum number of fasteners at the end support: 2 or 3  
 Minimum number of fasteners at the intermediate support: 3 or 4

ULS – Ultimate Limit State  
 SLS – Serviceability Limit State

Static scheme	Colour group	Criterion	Span length [m]											
			1.00	1.50	2.00	2.50	3.00	3.50	4.00	4.50	5.00	5.50	6.00	6.50
Single-span system	I	ULS 3/0	6.06	4.04	3.03	2.43	2.02	1.73	1.52	1.35	1.21	1.06	0.84	0.67
		ULS 2/0	6.06	4.04	3.03	2.43	2.02	1.73	1.52	1.35	1.21	1.06	0.84	0.67
		L/100	15.04	9.38	6.46	4.67	3.49	2.66	2.07	1.63	1.30	1.05	0.83	0.67
		SLS L/150	10.02	6.26	4.31	3.12	2.33	1.78	1.34	1.01	0.77	0.59	0.41	0.28
		L/200	7.51	4.69	3.23	2.34	1.69	1.21	0.88	0.58	0.36	0.20	0.09	0.02
	II	ULS 3/0	6.06	4.04	3.03	2.43	2.02	1.73	1.52	1.35	1.21	1.06	0.84	0.67
		ULS 2/0	6.06	4.04	3.03	2.43	2.02	1.73	1.52	1.35	1.21	1.06	0.84	0.67
		L/100	15.04	9.38	6.46	4.67	3.49	2.66	2.07	1.63	1.30	1.05	0.83	0.67
		SLS L/150	10.02	6.26	4.31	3.12	2.33	1.78	1.34	1.01	0.77	0.59	0.41	0.28
		L/200	7.51	4.69	3.23	2.34	1.69	1.21	0.88	0.58	0.36	0.20	0.00	0.00
	III	ULS 3/0	6.06	4.04	3.03	2.43	2.02	1.73	1.52	1.35	1.21	1.06	0.84	0.67
		ULS 2/0	6.06	4.04	3.03	2.43	2.02	1.73	1.52	1.35	1.21	1.06	0.84	0.67
		L/100	15.04	9.38	6.46	4.67	3.49	2.66	2.07	1.63	1.30	1.05	0.83	0.67
		SLS L/150	10.02	6.26	4.31	3.12	2.33	1.78	1.34	1.01	0.77	0.59	0.00	0.00
		L/200	7.51	4.69	3.23	2.34	1.69	1.21	0.88	0.00	0.00	0.00	0.00	0.00
Double-span system	I	ULS 2/4	6.06	4.04	3.03	2.43	1.73	0.79	0.36	0.16	0.05	0.00	0.00	0.00
		ULS 2/3	6.06	4.04	3.03	2.43	1.73	0.79	0.36	0.16	0.05	0.00	0.00	0.00
		L/100	15.11	9.57	6.79	5.11	4.00	3.22	2.64	2.19	1.84	1.56	1.33	1.15
		SLS L/150	10.07	6.38	4.52	3.41	2.67	2.14	1.75	1.47	1.23	1.04	0.89	0.76
		L/200	7.56	4.79	3.39	2.55	2.00	1.61	1.32	1.09	0.92	0.78	0.66	0.57
	II	ULS 2/4	6.06	4.04	3.03	2.43	1.73	0.79	0.00	0.00	0.00	0.00	0.00	0.00
		ULS 2/3	6.06	4.04	3.03	2.43	1.73	0.79	0.00	0.00	0.00	0.00	0.00	0.00
		L/100	15.11	9.57	6.79	5.11	4.00	3.22	2.64	2.19	1.84	1.56	1.33	1.15
		SLS L/150	10.07	6.38	4.52	3.41	2.67	2.14	1.75	1.47	1.23	1.04	0.89	0.76
		L/200	7.56	4.79	3.39	2.55	2.00	1.61	1.32	1.09	0.92	0.78	0.66	0.57
	III	ULS 2/4	6.06	4.04	3.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		ULS 2/3	6.06	4.04	3.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		L/100	15.11	9.57	6.79	5.11	4.00	3.22	2.64	2.19	1.84	1.56	1.33	1.15
		SLS L/150	10.07	6.38	4.52	3.41	2.67	2.14	1.75	1.47	1.23	1.04	0.89	0.76
		L/200	7.56	4.79	3.39	2.55	2.00	1.61	1.32	1.09	0.92	0.78	0.66	0.57
Multi-span system	I	ULS 2/4	6.06	4.04	3.03	2.43	1.51	0.87	0.55	0.37	0.26	0.19	0.15	0.11
		ULS 2/3	6.06	4.04	3.03	2.43	1.51	0.87	0.55	0.37	0.26	0.19	0.15	0.11
		L/100	15.16	9.65	6.86	5.16	4.02	3.20	2.59	2.12	1.76	1.47	1.24	1.06
		SLS L/150	10.11	6.44	4.57	3.44	2.68	2.14	1.73	1.41	1.18	0.99	0.83	0.71
		L/200	7.58	4.82	3.43	2.58	2.01	1.61	1.30	1.07	0.88	0.74	0.62	0.53
	II	ULS 2/4	6.06	4.04	3.03	2.43	1.51	0.87	0.00	0.00	0.00	0.00	0.00	0.00
		ULS 2/3	6.06	4.04	3.03	2.43	1.51	0.87	0.00	0.00	0.00	0.00	0.00	0.00
		L/100	15.16	9.65	6.86	5.16	4.02	3.20	2.59	2.12	1.76	1.47	1.24	1.06
		SLS L/150	10.11	6.44	4.57	3.44	2.68	2.14	1.73	1.41	1.18	0.99	0.83	0.71
		L/200	7.58	4.82	3.43	2.58	2.01	1.61	1.30	1.07	0.88	0.74	0.62	0.53
	III	ULS 2/4	6.06	4.04	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		ULS 2/3	6.06	4.04	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		L/100	15.16	9.65	6.86	5.16	4.02	3.20	2.59	2.12	1.76	1.47	1.24	1.06
		SLS L/150	10.11	6.44	4.57	3.44	2.68	2.14	1.73	1.41	1.18	0.99	0.83	0.71
		L/200	7.58	4.82	3.43	2.58	2.01	1.61	1.30	1.07	0.88	0.74	0.62	0.53

● **Maximum allowable wind suction [kN/m<sup>2</sup>] for the length of span made of Ruukki SPB80WE panels**

*Table 3*

External facing thickness: 0.60 mm  
 Internal facing thickness: 0.50 mm  
 External temperature: +55°C; +65°C; +80°C/-20°C (summer/winter)  
 Internal temperature: +20°C/+20°C (summer/winter)  
 Minimum end support width: 70 mm  
 Minimum intermediate support width: 140 mm  
 Minimum number of fasteners at the end support: 2 or 3  
 Minimum number of fasteners at the intermediate support: 3 or 4

ULS – Ultimate Limit State  
 SLS – Serviceability Limit State

Static scheme	Colour group	Criterion	Span length [m]											
			1.00	1.50	2.00	2.50	3.00	3.50	4.00	4.50	5.00	5.50	6.00	6.50
Single-span system	I	ULS 3/0	7.73	5.07	3.77	3.00	2.49	2.13	1.78	1.41	1.14	0.94	0.79	0.68
		ULS 2/0	7.73	5.07	3.77	3.00	2.49	2.13	1.78	1.41	1.14	0.94	0.79	0.68
		L/100	15.04	9.38	6.46	4.68	3.49	2.67	2.07	1.63	1.31	1.06	0.86	0.71
		SLS L/150	10.02	6.26	4.31	3.12	2.33	1.78	1.38	1.05	0.81	0.63	0.50	0.37
		L/200	7.51	4.69	3.23	2.34	1.75	1.28	0.94	0.70	0.49	0.32	0.20	0.11
	II	ULS 3/0	7.73	5.07	3.77	3.00	2.49	2.13	1.78	1.41	1.14	0.94	0.79	0.63
		ULS 2/0	7.73	5.07	3.77	3.00	2.49	2.13	1.78	1.41	1.14	0.94	0.79	0.63
		L/100	15.04	9.38	6.46	4.68	3.49	2.67	2.07	1.63	1.30	1.01	0.80	0.63
		SLS L/150	10.02	6.26	4.31	3.12	2.33	1.73	1.28	0.94	0.70	0.47	0.30	0.18
		L/200	7.51	4.69	3.23	2.32	1.62	1.14	0.74	0.42	0.22	0.08	0.00	0.00
	III	ULS 3/0	7.73	5.07	3.77	3.00	2.49	2.13	1.78	1.41	1.14	0.88	0.61	0.42
		ULS 2/0	7.73	5.07	3.77	3.00	2.49	2.13	1.78	1.41	1.14	0.88	0.61	0.42
		L/100	15.04	9.38	6.46	4.68	3.49	2.67	2.01	1.51	1.15	0.88	0.61	0.41
		SLS L/150	10.02	6.26	4.31	3.10	2.15	1.52	0.98	0.57	0.29	0.10	0.00	0.00
		L/200	7.51	4.69	3.14	2.06	1.24	0.61	0.22	0.00	0.00	0.00	0.00	0.00
Double-span system	I	ULS 2/4	5.88	3.66	2.63	2.03	1.44	0.97	0.52	0.29	0.16	0.00	0.00	0.00
		ULS 2/3	4.21	2.59	1.85	1.42	1.17	0.97	0.52	0.29	0.16	0.00	0.00	0.00
		L/100	15.11	9.58	6.78	5.11	4.00	3.22	2.63	2.19	1.84	1.56	1.33	1.14
		SLS L/150	10.07	6.39	4.52	3.41	2.67	2.14	1.76	1.46	1.23	1.04	0.89	0.76
		L/200	7.56	4.79	3.39	2.56	2.00	1.61	1.32	1.10	0.92	0.78	0.66	0.57
	II	ULS 2/4	5.65	3.49	2.46	1.58	0.66	0.04	0.00	0.00	0.00	0.00	0.00	0.00
		ULS 2/3	4.00	2.41	1.71	1.31	0.65	0.04	0.00	0.00	0.00	0.00	0.00	0.00
		L/100	15.11	9.58	6.78	5.11	4.00	3.22	2.63	2.19	1.84	1.56	1.33	1.14
		SLS L/150	10.07	6.39	4.52	3.41	2.67	2.14	1.76	1.46	1.23	1.04	0.89	0.76
		L/200	7.56	4.79	3.39	2.56	2.00	1.61	1.32	1.10	0.92	0.78	0.66	0.57
	III	ULS 2/4	5.33	3.22	1.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		ULS 2/3	3.67	2.15	1.47	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		L/100	15.11	9.58	6.78	5.11	4.00	3.22	2.63	2.19	1.84	1.56	1.33	1.14
		SLS L/150	10.07	6.39	4.52	3.41	2.67	2.14	1.76	1.46	1.23	1.04	0.89	0.76
		L/200	7.56	4.79	3.39	2.56	2.00	1.61	1.32	1.10	0.90	0.75	0.62	0.52
Multi-span system	I	ULS 2/4	6.00	3.89	2.90	2.32	1.41	1.05	0.69	0.49	0.36	0.27	0.22	0.17
		ULS 2/3	4.39	2.84	2.12	1.68	1.41	1.05	0.69	0.49	0.36	0.28	0.22	0.18
		L/100	15.16	9.65	6.86	5.16	4.02	3.21	2.59	2.13	1.76	1.47	1.24	1.05
		SLS L/150	10.11	6.44	4.57	3.44	2.68	2.14	1.73	1.41	1.17	0.98	0.83	0.70
		L/200	7.58	4.83	3.43	2.58	2.01	1.61	1.30	1.07	0.88	0.73	0.62	0.53
	II	ULS 2/4	5.82	3.77	2.81	1.39	0.46	0.11	0.00	0.00	0.00	0.00	0.00	0.00
		ULS 2/3	4.21	2.72	2.01	1.39	0.46	0.11	0.00	0.00	0.00	0.00	0.00	0.00
		L/100	15.16	9.65	6.86	5.16	4.02	3.21	2.59	2.13	1.76	1.47	1.24	1.05
		SLS L/150	10.11	6.44	4.57	3.44	2.68	2.14	1.73	1.41	1.17	0.98	0.83	0.70
		L/200	7.58	4.83	3.43	2.58	2.01	1.61	1.30	1.07	0.88	0.73	0.61	0.50
	III	ULS 2/4	5.55	3.58	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		ULS 2/3	3.94	2.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		L/100	15.16	9.65	6.86	5.16	4.02	3.21	2.59	2.13	1.76	1.47	1.24	1.05
		SLS L/150	10.11	6.44	4.57	3.44	2.68	2.14	1.73	1.41	1.17	0.98	0.81	0.67
		L/200	7.58	4.83	3.43	2.58	2.01	1.61	1.29	1.02	0.82	0.66	0.53	0.40

• **Maximum allowable wind pressure [kN/m<sup>2</sup>] for the length of span made of Ruukki SPB100WE panels**

*Table 4*

External facing thickness: 0.60 mm  
 Internal facing thickness: 0.50 mm  
 External temperature: +55°C; +65°C; +80°C/-20°C (summer/winter)  
 Internal temperature: +20°C/+20°C (summer/winter)  
 Minimum end support width: 70 mm  
 Minimum intermediate support width: 140 mm  
 Minimum number of fasteners at the end support: 2 or 3  
 Minimum number of fasteners at the intermediate support: 3 or 4

ULS – Ultimate Limit State  
 SLS – Serviceability Limit State

Static scheme	Colour group	Criterion	Span length [m]											
			1.00	1.50	2.00	2.50	3.00	3.50	4.00	4.50	5.00	5.50	6.00	6.50
Single-span system	I	ULS 3/0	6.06	4.04	3.03	2.42	2.02	1.73	1.35	1.41	1.21	1.11	1.01	0.93
		ULS 2/0	6.06	4.04	3.03	2.42	2.02	1.73	1.35	1.41	1.21	1.11	1.01	0.93
		L/100	19.06	12.05	8.42	6.20	4.70	3.65	2.29	1.63	1.85	1.52	1.25	1.05
		SLS L/150	12.71	8.03	5.62	4.13	3.13	2.43	1.53	1.05	1.21	0.95	0.75	0.60
		L/200	9.53	6.03	4.21	3.10	2.35	1.82	1.03	0.70	0.79	0.57	0.39	0.25
	II	ULS 3/0	6.06	4.04	3.03	2.42	2.02	1.73	1.35	1.41	1.21	1.10	1.01	0.94
		ULS 2/0	6.06	4.04	3.03	2.42	2.02	1.73	1.35	1.41	1.21	1.10	1.01	0.94
		L/100	19.06	12.05	8.42	6.20	4.70	3.65	2.29	1.63	1.85	1.52	1.25	1.05
		SLS L/150	12.71	8.03	5.62	4.13	3.13	2.43	1.53	0.94	1.21	0.95	0.75	0.60
		L/200	9.53	6.03	4.21	3.10	2.35	1.82	1.03	0.42	0.79	0.57	0.38	0.25
	III	ULS 3/0	6.06	4.04	3.03	2.42	2.02	1.73	1.35	1.41	1.21	1.10	1.01	0.93
		ULS 2/0	6.06	4.04	3.03	2.42	2.02	1.73	1.35	1.41	1.21	1.10	1.01	0.93
		L/100	19.06	12.05	8.42	6.20	4.70	3.65	2.29	1.51	1.85	1.52	1.25	1.05
		SLS L/150	12.71	8.03	5.62	4.13	3.13	2.43	1.53	0.57	1.21	0.95	0.75	0.60
		L/200	9.53	6.03	4.21	3.10	2.35	1.82	1.03	0.00	0.79	0.57	0.00	0.00
Double-span system	I	ULS 2/4	6.06	4.04	3.03	2.42	1.98	1.41	0.35	0.29	0.17	0.07	0.01	0.00
		ULS 2/3	6.06	4.04	3.03	2.42	1.98	1.41	0.35	0.29	0.17	0.07	0.01	0.00
		L/100	19.14	12.22	8.72	6.62	5.22	4.23	2.93	2.19	2.48	2.12	1.83	1.59
		SLS L/150	12.76	8.14	5.82	4.41	3.48	2.82	1.96	1.46	1.66	1.41	1.22	1.06
		L/200	9.56	6.11	4.36	3.31	2.61	2.12	1.47	1.10	1.24	1.06	0.91	0.79
	II	ULS 2/4	6.06	4.04	3.03	2.42	1.98	1.41	0.00	0.00	0.00	0.00	0.00	0.00
		ULS 2/3	6.06	4.04	3.03	2.42	1.98	1.41	0.00	0.00	0.00	0.00	0.00	0.00
		L/100	19.14	12.22	8.72	6.62	5.22	4.23	2.93	2.19	2.48	2.12	1.83	1.59
		SLS L/150	12.76	8.14	5.82	4.41	3.48	2.82	1.96	1.46	1.66	1.41	1.22	1.06
		L/200	9.56	6.11	4.36	3.31	2.61	2.12	1.47	1.10	1.24	1.06	0.91	0.79
	III	ULS 2/4	6.06	4.04	3.03	2.42	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		ULS 2/3	6.06	4.04	3.03	2.42	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		L/100	19.14	12.22	8.72	6.62	5.22	4.23	2.93	2.19	2.48	2.12	1.83	1.59
		SLS L/150	12.76	8.14	5.82	4.41	3.48	2.82	1.96	1.46	1.66	1.41	1.22	1.06
		L/200	9.56	6.11	4.36	3.31	2.61	2.12	1.47	1.10	1.24	1.06	0.91	0.79
Multi-span system	I	ULS 2/4	6.06	4.04	3.03	2.42	2.02	1.30	0.54	0.49	0.38	0.28	0.21	0.16
		ULS 2/3	6.06	4.04	3.03	2.42	2.02	1.30	0.54	0.49	0.38	0.28	0.21	0.16
		L/100	19.18	12.30	8.81	6.69	5.27	4.25	2.88	2.13	2.41	2.04	1.74	1.49
		SLS L/150	12.78	8.20	5.88	4.46	3.51	2.83	1.92	1.41	1.61	1.36	1.16	0.99
		L/200	9.59	6.15	4.41	3.35	2.63	2.12	1.45	1.07	1.21	1.02	0.87	0.74
	II	ULS 2/4	6.06	4.04	3.03	2.42	2.02	1.30	0.00	0.00	0.00	0.00	0.00	0.00
		ULS 2/3	6.06	4.04	3.03	2.42	2.02	1.30	0.00	0.00	0.00	0.00	0.00	0.00
		L/100	19.18	12.30	8.81	6.69	5.27	4.25	2.88	2.13	2.41	2.04	1.74	1.49
		SLS L/150	12.78	8.20	5.88	4.46	3.51	2.83	1.92	1.41	1.61	1.36	1.16	0.99
		L/200	9.59	6.15	4.41	3.35	2.63	2.12	1.45	1.07	1.21	1.02	0.87	0.74
	III	ULS 2/4	6.06	4.04	3.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		ULS 2/3	6.06	4.04	3.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		L/100	19.18	12.30	8.81	6.69	5.27	4.25	2.88	2.13	2.41	2.04	1.74	1.49
		SLS L/150	12.78	8.20	5.88	4.46	3.51	2.83	1.92	1.41	1.61	1.36	1.16	0.99
		L/200	9.59	6.15	4.41	3.35	2.63	2.12	1.45	1.02	1.21	1.02	0.87	0.74

● **Maximum allowable wind suction [kN/m<sup>2</sup>] for the length of span made of Ruukki SPB100WE panels**

*Table 5*

External facing thickness: 0.60 mm  
 Internal facing thickness: 0.50 mm  
 External temperature: +55°C; +65°C; +80°C/-20°C (summer/winter)  
 Internal temperature: +20°C/+20°C (summer/winter)  
 Minimum end support width: 70 mm  
 Minimum intermediate support width: 140 mm  
 Minimum number of fasteners at the end support: 2 or 3  
 Minimum number of fasteners at the intermediate support: 3 or 4

ULS – Ultimate Limit State  
 SLS – Serviceability Limit State

Static scheme	Colour group	Criterion	Span length [m]											
			1.00	1.50	2.00	2.50	3.00	3.50	4.00	4.50	5.00	5.50	6.00	6.50
Single-span system	I	ULS 3/0	9.49	6.24	4.65	3.71	3.08	2.63	2.24	1.77	1.43	1.18	0.99	0.84
		ULS 2/0	9.49	6.24	4.65	3.71	3.08	2.63	2.24	1.77	1.43	1.18	0.99	0.84
		L/100	19.06	12.05	8.42	6.19	4.70	3.65	2.88	2.30	1.86	1.52	1.25	1.04
		SLS L/150	12.71	8.03	5.62	4.13	3.14	2.43	1.92	1.53	1.23	0.99	0.80	0.64
		L/200	9.53	6.02	4.21	3.10	2.36	1.82	1.43	1.10	0.85	0.66	0.51	0.37
	II	ULS 3/0	9.49	6.24	4.65	3.71	3.08	2.63	2.24	1.77	1.43	1.18	0.99	0.84
		ULS 2/0	9.49	6.24	4.65	3.71	3.08	2.63	2.24	1.77	1.43	1.18	0.99	0.84
		L/100	19.06	12.05	8.42	6.19	4.70	3.65	2.88	2.30	1.86	1.51	1.25	1.02
		SLS L/150	12.71	8.03	5.62	4.13	3.14	2.44	1.92	1.48	1.14	0.89	0.71	0.52
		L/200	9.53	6.02	4.21	3.10	2.35	1.74	1.29	0.97	0.67	0.43	0.26	0.14
	III	ULS 3/0	9.49	6.24	4.65	3.71	3.08	2.63	2.24	1.77	1.43	1.18	0.99	0.84
		ULS 2/0	9.49	6.24	4.65	3.71	3.08	2.63	2.24	1.77	1.43	1.18	0.99	0.84
		L/100	19.06	12.05	8.42	6.19	4.70	3.65	2.87	2.30	1.81	1.42	1.13	0.90
		SLS L/150	12.71	8.03	5.62	4.13	3.14	2.32	1.72	1.30	0.89	0.57	0.35	0.19
		L/200	9.53	6.02	4.21	3.01	2.11	1.49	0.89	0.48	0.20	0.01	0.00	0.00
Double-span system	I	ULS 2/4	5.89	3.66	2.61	2.03	1.64	1.40	0.89	0.51	0.30	0.18	0.11	0.00
		ULS 2/3	4.22	2.58	1.83	1.41	1.13	0.97	0.85	0.51	0.30	0.18	0.11	0.00
		L/100	19.14	12.21	8.72	6.62	5.22	4.24	3.50	2.93	2.48	2.12	1.83	1.58
		SLS L/150	12.75	8.14	5.81	4.42	3.48	2.83	2.33	1.95	1.66	1.41	1.22	1.06
		L/200	9.56	6.11	4.36	3.31	2.61	2.12	1.75	1.47	1.24	1.06	0.91	0.79
	II	ULS 2/4	5.66	3.47	2.46	1.87	1.53	0.44	0.00	0.00	0.00	0.00	0.00	0.00
		ULS 2/3	3.99	2.39	1.67	1.27	1.04	0.44	0.00	0.00	0.00	0.00	0.00	0.00
		L/100	19.14	12.21	8.72	6.62	5.22	4.24	3.50	2.93	2.48	2.12	1.83	1.58
		SLS L/150	12.75	8.14	5.81	4.42	3.48	2.83	2.33	1.95	1.66	1.41	1.22	1.06
		L/200	9.56	6.11	4.36	3.31	2.61	2.12	1.75	1.47	1.24	1.06	0.91	0.79
	III	ULS 2/4	5.32	3.18	2.20	0.99	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		ULS 2/3	3.65	2.11	1.32	0.95	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		L/100	19.14	12.21	8.72	6.62	5.22	4.24	3.50	2.93	2.48	2.12	1.83	1.58
		SLS L/150	12.75	8.14	5.81	4.42	3.48	2.83	2.33	1.95	1.66	1.41	1.22	1.06
		L/200	9.56	6.11	4.36	3.31	2.61	2.12	1.75	1.47	1.24	1.06	0.91	0.78
Multi-span system	I	ULS 2/4	6.05	3.91	2.90	2.29	1.91	1.52	0.99	0.68	0.50	0.38	0.30	0.24
		ULS 2/3	4.37	2.81	2.08	1.65	1.38	1.20	0.99	0.68	0.50	0.38	0.30	0.24
		L/100	19.17	12.30	8.81	6.69	5.27	4.25	3.48	2.88	2.42	2.04	1.74	1.48
		SLS L/150	12.78	8.20	5.88	4.46	3.51	2.83	2.32	1.92	1.61	1.36	1.16	0.99
		L/200	9.59	6.14	4.41	3.35	2.64	2.13	1.74	1.44	1.21	1.02	0.87	0.74
	II	ULS 2/4	5.86	3.77	2.76	2.21	0.95	0.34	0.09	0.00	0.00	0.00	0.00	0.00
		ULS 2/3	4.18	2.67	1.96	1.58	0.94	0.34	0.09	0.00	0.00	0.00	0.00	0.00
		L/100	19.17	12.30	8.81	6.69	5.27	4.25	3.48	2.88	2.42	2.04	1.74	1.48
		SLS L/150	12.78	8.20	5.88	4.46	3.51	2.83	2.32	1.92	1.61	1.36	1.16	0.99
		L/200	9.59	6.14	4.41	3.35	2.64	2.13	1.74	1.44	1.21	1.02	0.87	0.74
	III	ULS 2/4	5.57	3.51	1.66	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		ULS 2/3	3.89	2.42	1.67	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		L/100	19.17	12.30	8.81	6.69	5.27	4.25	3.48	2.88	2.42	2.04	1.74	1.48
		SLS L/150	12.78	8.20	5.88	4.46	3.51	2.83	2.32	1.92	1.61	1.36	1.16	0.99
		L/200	9.59	6.14	4.41	3.35	2.64	2.13	1.74	1.44	1.20	0.99	0.82	0.69

● **Maximum allowable wind pressure [kN/m<sup>2</sup>] for the length of span made of Ruukki SPB120WE panels**

*Table 6*

External facing thickness: 0.60 mm  
 Internal facing thickness: 0.50 mm  
 External temperature: +55°C; +65°C; +80°C/-20°C (summer/winter)  
 Internal temperature: +20°C/+20°C (summer/winter)  
 Minimum end support width: 70 mm  
 Minimum intermediate support width: 140 mm  
 Minimum number of fasteners at the end support: 2 or 3  
 Minimum number of fasteners at the intermediate support: 3 or 4

ULS – Ultimate Limit State  
 SLS – Serviceability Limit State

Static scheme	Colour group	Criterion	Span length [m]											
			1.00	1.50	2.00	2.50	3.00	3.50	4.00	4.50	5.00	5.50	6.00	6.50
Single-span system	I	ULS 3/0	6.06	4.04	3.03	2.42	2.02	1.73	1.52	1.35	1.21	1.10	1.01	0.93
		ULS 2/0	6.06	4.04	3.03	2.42	2.02	1.73	1.52	1.35	1.21	1.10	1.01	0.93
		L/100	23.09	14.72	10.40	7.74	5.95	4.67	3.72	3.01	2.45	2.02	1.68	1.41
		SLS L/150	15.40	9.81	6.93	5.17	3.97	3.11	2.48	2.00	1.64	1.35	1.09	0.89
		L/200	11.55	7.36	5.20	3.87	2.97	2.34	1.86	1.46	1.15	0.90	0.72	0.55
	II	ULS 3/0	6.06	4.04	3.03	2.42	2.02	1.73	1.52	1.35	1.21	1.10	1.01	0.93
		ULS 2/0	6.06	4.04	3.03	2.42	2.02	1.73	1.52	1.35	1.21	1.10	1.01	0.93
		L/100	23.09	14.72	10.40	7.74	5.95	4.67	3.72	3.01	2.45	2.02	1.68	1.41
		SLS L/150	15.40	9.81	6.93	5.17	3.97	3.11	2.48	2.00	1.64	1.35	1.09	0.89
		L/200	11.55	7.36	5.20	3.87	2.97	2.34	1.86	1.46	1.15	0.90	0.72	0.55
	III	ULS 3/0	6.06	4.04	3.03	2.42	2.02	1.73	1.52	1.35	1.21	1.10	1.01	0.93
		ULS 2/0	6.06	4.04	3.03	2.42	2.02	1.73	1.52	1.35	1.21	1.10	1.01	0.93
		L/100	23.09	14.72	10.40	7.74	5.95	4.67	3.72	3.01	2.45	2.02	1.68	1.41
		SLS L/150	15.40	9.81	6.93	5.17	3.97	3.11	2.48	2.00	1.64	1.35	1.09	0.89
		L/200	11.55	7.36	5.20	3.87	2.97	2.34	1.86	1.46	1.14	0.91	0.72	0.55
Double-span system	I	ULS 2/4	6.06	4.04	3.03	2.42	1.97	1.67	1.14	0.61	0.33	0.17	0.07	0.02
		ULS 2/3	6.06	4.04	3.03	2.42	1.97	1.67	1.14	0.61	0.33	0.17	0.07	0.02
		L/100	23.16	14.88	10.68	8.15	6.47	5.27	4.38	3.69	3.15	2.71	2.35	2.05
		SLS L/150	15.44	9.92	7.12	5.44	4.32	3.52	2.92	2.46	2.10	1.81	1.56	1.36
		L/200	11.58	7.44	5.34	4.08	3.23	2.64	2.19	1.85	1.58	1.35	1.17	1.02
	II	ULS 2/4	6.06	4.04	3.03	2.42	1.97	1.67	1.14	0.00	0.00	0.00	0.00	0.00
		ULS 2/3	6.06	4.04	3.03	2.42	1.97	1.67	1.14	0.00	0.00	0.00	0.00	0.00
		L/100	23.16	14.88	10.68	8.15	6.47	5.27	4.38	3.69	3.15	2.71	2.35	2.05
		SLS L/150	15.44	9.92	7.12	5.44	4.32	3.52	2.92	2.46	2.10	1.81	1.56	1.36
		L/200	11.58	7.44	5.34	4.08	3.23	2.64	2.19	1.85	1.58	1.35	1.17	1.02
	III	ULS 2/4	6.06	4.04	3.03	2.41	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		ULS 2/3	6.06	4.04	3.03	2.41	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		L/100	23.16	14.88	10.68	8.15	6.47	5.27	4.38	3.69	3.15	2.71	2.35	2.05
		SLS L/150	15.44	9.92	7.12	5.44	4.32	3.52	2.92	2.46	2.10	1.81	1.56	1.36
		L/200	11.58	7.44	5.34	4.08	3.23	2.64	2.19	1.85	1.58	1.35	1.17	1.02
Multi-span system	I	ULS 2/4	6.06	4.04	3.03	2.42	2.02	1.73	1.13	0.74	0.52	0.38	0.28	0.22
		ULS 2/3	6.06	4.04	3.03	2.42	2.02	1.73	1.13	0.74	0.52	0.38	0.28	0.22
		L/100	23.20	14.95	10.78	8.25	6.54	5.31	4.38	3.67	3.09	2.64	2.26	1.95
		SLS L/150	15.47	9.97	7.19	5.49	4.36	3.54	2.92	2.44	2.06	1.76	1.51	1.30
		L/200	11.60	7.48	5.39	4.12	3.27	2.66	2.19	1.84	1.55	1.32	1.13	0.97
	II	ULS 2/4	6.06	4.04	3.03	2.42	2.02	1.73	1.13	0.74	0.00	0.00	0.00	0.00
		ULS 2/3	6.06	4.04	3.03	2.42	2.02	1.73	1.13	0.74	0.00	0.00	0.00	0.00
		L/100	23.20	14.95	10.78	8.25	6.54	5.31	4.38	3.67	3.09	2.64	2.26	1.95
		SLS L/150	15.47	9.97	7.19	5.49	4.36	3.54	2.92	2.44	2.06	1.76	1.51	1.30
		L/200	11.60	7.48	5.39	4.12	3.27	2.66	2.19	1.84	1.55	1.32	1.13	0.97
	III	ULS 2/4	6.06	4.04	3.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		ULS 2/3	6.06	4.04	3.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		L/100	23.20	14.95	10.78	8.25	6.54	5.31	4.38	3.67	3.09	2.64	2.26	1.95
		SLS L/150	15.47	9.97	7.19	5.49	4.36	3.54	2.92	2.44	2.06	1.76	1.51	1.30
		L/200	11.60	7.48	5.39	4.12	3.27	2.66	2.19	1.84	1.55	1.32	1.13	0.97

● **Maximum allowable wind suction [kN/m<sup>2</sup>] for the length of span made of Ruukki SPB120WE panels**

*Table 7*

External facing thickness: 0.60 mm  
 Internal facing thickness: 0.50 mm  
 External temperature: +55°C; +65°C; +80°C/-20°C (summer/winter)  
 Internal temperature: +20°C/+20°C (summer/winter)  
 Minimum end support width: 70 mm  
 Minimum intermediate support width: 140 mm  
 Minimum number of fasteners at the end support: 2 or 3  
 Minimum number of fasteners at the intermediate support: 3 or 4

ULS – Ultimate Limit State  
 SLS – Serviceability Limit State

Static scheme	Colour group	Criterion	Span length [m]											
			1.00	1.50	2.00	2.50	3.00	3.50	4.00	4.50	5.00	5.50	6.00	6.50
Single-span system	I	ULS 3/0	9.56	6.27	4.67	3.71	3.09	2.64	2.30	2.05	1.72	1.42	1.20	1.02
		ULS 2/0	9.56	6.27	4.67	3.71	3.09	2.64	2.30	2.05	1.72	1.42	1.20	1.02
		L/100	23.09	14.72	10.40	7.75	5.95	4.67	3.72	3.00	2.45	2.02	1.69	1.42
		SLS L/150	15.40	9.81	6.93	5.16	3.97	3.11	2.48	2.00	1.63	1.35	1.13	0.94
		L/200	11.55	7.36	5.20	3.87	2.97	2.33	1.86	1.50	1.20	0.97	0.77	0.62
	II	ULS 3/0	9.56	6.27	4.67	3.71	3.09	2.64	2.30	2.05	1.72	1.42	1.20	1.02
		ULS 2/0	9.56	6.27	4.67	3.71	3.09	2.64	2.30	2.05	1.72	1.42	1.20	1.02
		L/100	23.09	14.72	10.40	7.75	5.95	4.67	3.72	3.00	2.45	2.02	1.68	1.41
		SLS L/150	15.40	9.81	6.93	5.16	3.97	3.11	2.48	2.00	1.63	1.30	1.04	0.85
		L/200	11.55	7.36	5.20	3.87	2.97	2.33	1.81	1.39	1.08	0.85	0.61	0.42
	III	ULS 3/0	9.56	6.27	4.67	3.71	3.09	2.64	2.30	2.05	1.72	1.43	1.20	1.02
		ULS 2/0	9.56	6.27	4.67	3.71	3.09	2.64	2.30	2.05	1.72	1.43	1.20	1.02
		L/100	23.09	14.72	10.40	7.75	5.95	4.67	3.72	3.00	2.45	2.02	1.64	1.33
		SLS L/150	15.40	9.81	6.93	5.16	3.96	3.11	2.41	1.86	1.44	1.13	0.81	0.56
		L/200	11.55	7.36	5.20	3.87	2.89	2.13	1.59	1.08	0.68	0.39	0.19	0.04
Double-span system	I	ULS 2/4	5.90	3.66	2.60	2.01	1.62	1.37	0.95	0.74	0.48	0.30	0.18	0.12
		ULS 2/3	4.22	2.57	1.81	1.38	1.13	0.94	0.83	0.74	0.48	0.30	0.18	0.12
		L/100	23.16	14.87	10.68	8.15	6.47	5.27	4.38	3.69	3.15	2.71	2.35	2.04
		SLS L/150	15.44	9.91	7.12	5.44	4.31	3.51	2.92	2.46	2.10	1.81	1.57	1.36
		L/200	11.57	7.44	5.34	4.08	3.23	2.63	2.19	1.84	1.58	1.36	1.17	1.02
	II	ULS 2/4	5.67	3.46	2.44	1.85	1.51	0.85	0.26	0.00	0.00	0.00	0.00	0.00
		ULS 2/3	3.99	2.37	1.64	1.25	1.00	0.85	0.26	0.00	0.00	0.00	0.00	0.00
		L/100	23.16	14.87	10.68	8.15	6.47	5.27	4.38	3.69	3.15	2.71	2.35	2.04
		SLS L/150	15.44	9.91	7.12	5.44	4.31	3.51	2.92	2.46	2.10	1.81	1.57	1.36
		L/200	11.57	7.44	5.34	4.08	3.23	2.63	2.19	1.84	1.58	1.36	1.17	1.02
	III	ULS 2/4	5.31	3.16	2.16	1.48	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		ULS 2/3	3.64	2.07	1.20	0.78	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		L/100	23.16	14.87	10.68	8.15	6.47	5.27	4.38	3.69	3.15	2.71	2.35	2.04
		SLS L/150	15.44	9.91	7.12	5.44	4.31	3.51	2.92	2.46	2.10	1.81	1.57	1.36
		L/200	11.57	7.44	5.34	4.08	3.23	2.63	2.19	1.84	1.57	1.36	1.18	1.02
Multi-span system	I	ULS 2/4	6.04	3.88	2.87	2.26	1.89	1.53	1.04	0.91	0.66	0.49	0.38	0.30
		ULS 2/3	4.35	2.78	2.05	1.64	1.35	1.18	1.04	0.91	0.66	0.49	0.39	0.31
		L/100	23.19	14.95	10.78	8.25	6.54	5.31	4.38	3.66	3.09	2.63	2.26	1.95
		SLS L/150	15.46	9.97	7.18	5.50	4.36	3.54	2.92	2.44	2.06	1.76	1.51	1.30
		L/200	11.60	7.48	5.39	4.12	3.27	2.65	2.19	1.83	1.55	1.32	1.13	0.97
	II	ULS 2/4	5.84	3.73	2.72	2.17	1.29	0.65	0.24	0.06	0.00	0.00	0.00	0.00
		ULS 2/3	4.15	2.62	1.91	1.53	1.29	0.65	0.24	0.06	0.00	0.00	0.00	0.00
		L/100	23.19	14.95	10.78	8.25	6.54	5.31	4.38	3.66	3.09	2.63	2.26	1.95
		SLS L/150	15.46	9.97	7.18	5.50	4.36	3.54	2.92	2.44	2.06	1.76	1.51	1.30
		L/200	11.60	7.48	5.39	4.12	3.27	2.65	2.19	1.83	1.55	1.32	1.13	0.98
	III	ULS 2/4	5.54	3.45	1.89	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		ULS 2/3	3.85	2.39	1.74	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		L/100	23.19	14.95	10.78	8.25	6.54	5.31	4.38	3.66	3.09	2.63	2.26	1.95
		SLS L/150	15.46	9.97	7.18	5.50	4.36	3.54	2.92	2.44	2.06	1.76	1.51	1.30
		L/200	11.60	7.48	5.39	4.12	3.27	2.65	2.19	1.83	1.56	1.31	1.13	0.96

• **Maximum allowable wind pressure [kN/m<sup>2</sup>] for the length of span made of Ruukki SPB140WE panels**

*Table 8*

External facing thickness: 0.60 mm  
 Internal facing thickness: 0.50 mm  
 External temperature: +55°C; +65°C; +80°C/-20°C (summer/winter)  
 Internal temperature: +20°C/+20°C (summer/winter)  
 Minimum end support width: 70 mm  
 Minimum intermediate support width: 140 mm  
 Minimum number of fasteners at the end support: 2 or 3  
 Minimum number of fasteners at the intermediate support: 3 or 4

ULS – Ultimate Limit State  
 SLS – Serviceability Limit State

Static scheme	Colour group	Criterion	Span length [m]											
			1.00	1.50	2.00	2.50	3.00	3.50	4.00	4.50	5.00	5.50	6.00	6.50
Single-span system	I	ULS 3/0	6.06	4.04	3.03	2.42	2.02	1.73	1.51	1.35	1.21	1.10	1.01	0.93
		ULS 2/0	6.06	4.04	3.03	2.42	2.02	1.73	1.51	1.35	1.21	1.10	1.01	0.93
		L/100	27.14	17.40	12.39	9.31	7.22	5.72	4.60	3.75	3.08	2.56	2.15	1.81
		SLS L/150	18.09	11.60	8.26	6.20	4.81	3.81	3.07	2.50	2.06	1.70	1.42	1.21
		L/200	13.57	8.70	6.20	4.66	3.61	2.86	2.30	1.87	1.53	1.22	0.98	0.80
	II	ULS 3/0	6.06	4.04	3.03	2.42	2.02	1.73	1.51	1.35	1.21	1.10	1.01	0.93
		ULS 2/0	6.06	4.04	3.03	2.42	2.02	1.73	1.51	1.35	1.21	1.10	1.01	0.93
		L/100	27.14	17.40	12.39	9.31	7.22	5.72	4.60	3.75	3.08	2.56	2.15	1.81
		SLS L/150	18.09	11.60	8.26	6.20	4.81	3.81	3.07	2.50	2.06	1.70	1.42	1.21
		L/200	13.57	8.70	6.20	4.66	3.61	2.86	2.30	1.87	1.53	1.22	0.99	0.80
	III	ULS 3/0	6.06	4.04	3.03	2.42	2.02	1.73	1.51	1.35	1.21	1.10	1.01	0.93
		ULS 2/0	6.06	4.04	3.03	2.42	2.02	1.73	1.51	1.35	1.21	1.10	1.01	0.93
		L/100	27.14	17.40	12.39	9.31	7.22	5.72	4.60	3.75	3.08	2.56	2.15	1.81
		SLS L/150	18.09	11.60	8.26	6.20	4.81	3.81	3.07	2.50	2.06	1.70	1.43	1.21
		L/200	13.57	8.70	6.20	4.66	3.61	2.86	2.30	1.87	1.53	1.22	0.99	0.80
Double-span system	I	ULS 2/4	6.06	4.04	3.03	2.41	1.96	1.65	1.43	0.93	0.52	0.29	0.15	0.07
		ULS 2/3	6.06	4.04	3.03	2.41	1.96	1.65	1.43	0.93	0.52	0.29	0.15	0.07
		L/100	27.19	17.54	12.65	9.70	7.73	6.33	5.28	4.48	3.83	3.31	2.89	2.53
		SLS L/150	18.12	11.69	8.43	6.46	5.15	4.22	3.52	2.98	2.56	2.21	1.92	1.68
		L/200	13.60	8.77	6.32	4.85	3.86	3.16	2.64	2.23	1.92	1.65	1.44	1.27
	II	ULS 2/4	6.06	4.04	3.03	2.41	1.96	1.65	1.44	0.93	0.00	0.00	0.00	0.00
		ULS 2/3	6.06	4.04	3.03	2.41	1.96	1.65	1.44	0.93	0.00	0.00	0.00	0.00
		L/100	27.19	17.54	12.65	9.70	7.73	6.33	5.28	4.48	3.83	3.31	2.89	2.53
		SLS L/150	18.12	11.69	8.43	6.46	5.15	4.22	3.52	2.98	2.56	2.21	1.92	1.68
		L/200	13.60	8.77	6.32	4.85	3.86	3.16	2.64	2.23	1.92	1.65	1.44	1.27
	III	ULS 2/4	6.06	4.04	3.03	2.41	1.96	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		ULS 2/3	6.06	4.04	3.03	2.41	1.96	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		L/100	27.19	17.54	12.65	9.70	7.73	6.33	5.28	4.48	3.83	3.31	2.89	2.53
		SLS L/150	18.12	11.69	8.43	6.46	5.15	4.22	3.52	2.98	2.56	2.21	1.92	1.68
		L/200	13.60	8.77	6.32	4.85	3.86	3.16	2.64	2.23	1.92	1.65	1.44	1.27
Multi-span system	I	ULS 2/4	6.06	4.04	3.03	2.42	2.02	1.73	1.49	0.98	0.67	0.49	0.36	0.28
		ULS 2/3	6.06	4.04	3.03	2.42	2.02	1.73	1.49	0.98	0.67	0.49	0.36	0.28
		L/100	27.23	17.61	12.76	9.80	7.82	6.39	5.31	4.46	3.80	3.25	2.80	2.43
		SLS L/150	18.15	11.74	8.50	6.53	5.21	4.26	3.54	2.98	2.53	2.16	1.87	1.62
		L/200	13.61	8.81	6.38	4.90	3.91	3.19	2.65	2.23	1.90	1.62	1.40	1.21
	II	ULS 2/4	6.06	4.04	3.03	2.42	2.02	1.73	1.49	0.98	0.68	0.00	0.00	0.00
		ULS 2/3	6.06	4.04	3.03	2.42	2.02	1.73	1.49	0.98	0.68	0.00	0.00	0.00
		L/100	27.23	17.61	12.76	9.80	7.82	6.39	5.31	4.46	3.80	3.25	2.80	2.43
		SLS L/150	18.15	11.74	8.50	6.53	5.21	4.26	3.54	2.98	2.53	2.16	1.87	1.62
		L/200	13.61	8.81	6.38	4.90	3.91	3.19	2.65	2.23	1.90	1.62	1.40	1.21
	III	ULS 2/4	6.06	4.04	3.03	2.43	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		ULS 2/3	6.06	4.04	3.03	2.43	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		L/100	27.23	17.61	12.76	9.80	7.82	6.39	5.31	4.46	3.80	3.25	2.80	2.43
		SLS L/150	18.15	11.74	8.50	6.53	5.21	4.26	3.54	2.98	2.53	2.16	1.87	1.62
		L/200	13.61	8.81	6.38	4.90	3.91	3.19	2.65	2.23	1.90	1.62	1.40	1.21

● **Maximum allowable wind suction [kN/m<sup>2</sup>] for the length of span made of Ruukki SPB140WE panels**

*Table 9*

External facing thickness: 0.60 mm  
 Internal facing thickness: 0.50 mm  
 External temperature: +55°C; +65°C; +80°C/-20°C (summer/winter)  
 Internal temperature: +20°C/+20°C (summer/winter)  
 Minimum end support width: 70 mm  
 Minimum intermediate support width: 140 mm  
 Minimum number of fasteners at the end support: 2 or 3  
 Minimum number of fasteners at the intermediate support: 3 or 4

ULS – Ultimate Limit State  
 SLS – Serviceability Limit State

Static scheme	Colour group	Criterion	Span length [m]											
			1.00	1.50	2.00	2.50	3.00	3.50	4.00	4.50	5.00	5.50	6.00	6.50
Single-span system	I	ULS 3/0	9.56	6.27	4.67	3.71	3.09	2.64	2.30	2.05	1.85	1.66	1.40	1.19
		ULS 2/0	9.56	6.27	4.67	3.71	3.09	2.64	2.30	2.05	1.85	1.66	1.40	1.19
		L/100	27.14	17.39	12.39	9.30	7.22	5.71	4.60	3.75	3.08	2.56	2.14	1.82
		SLS L/150	18.09	11.60	8.26	6.20	4.81	3.81	3.07	2.50	2.06	1.71	1.43	1.21
		L/200	13.57	8.70	6.19	4.65	3.61	2.86	2.30	1.87	1.54	1.29	1.04	0.86
	II	ULS 3/0	9.56	6.27	4.67	3.71	3.09	2.64	2.30	2.05	1.85	1.66	1.40	1.19
		ULS 2/0	9.56	6.27	4.67	3.71	3.09	2.64	2.30	2.05	1.85	1.66	1.40	1.19
		L/100	27.14	17.39	12.39	9.30	7.22	5.71	4.60	3.75	3.08	2.56	2.14	1.81
		SLS L/150	18.09	11.60	8.26	6.20	4.81	3.81	3.06	2.50	2.05	1.71	1.41	1.16
		L/200	13.57	8.70	6.19	4.65	3.61	2.86	2.30	1.85	1.46	1.16	0.93	0.75
	III	ULS 3/0	9.56	6.27	4.67	3.71	3.09	2.64	2.30	2.05	1.85	1.67	1.40	1.19
		ULS 2/0	9.56	6.27	4.67	3.71	3.09	2.64	2.30	2.05	1.85	1.67	1.40	1.19
		L/100	27.14	17.39	12.39	9.30	7.22	5.71	4.60	3.75	3.09	2.56	2.15	1.81
		SLS L/150	18.09	11.60	8.26	6.20	4.81	3.81	3.06	2.46	1.95	1.55	1.24	1.00
		L/200	13.57	8.70	6.19	4.65	3.61	2.78	2.12	1.63	1.23	0.84	0.55	0.33
Double-span system	I	ULS 2/4	5.91	3.66	2.59	1.99	1.62	1.35	1.17	0.77	0.65	0.44	0.28	0.19
		ULS 2/3	4.22	2.57	1.79	1.36	1.11	0.92	0.80	0.72	0.65	0.43	0.28	0.19
		L/100	27.19	17.53	12.65	9.70	7.73	6.32	5.28	4.47	3.83	3.31	2.88	2.53
		SLS L/150	18.12	11.69	8.43	6.46	5.15	4.21	3.52	2.98	2.55	2.21	1.93	1.68
		L/200	13.60	8.77	6.32	4.85	3.86	3.16	2.64	2.24	1.92	1.66	1.44	1.27
	II	ULS 2/4	5.67	3.45	2.42	1.82	1.47	1.03	0.63	0.12	0.00	0.00	0.00	0.00
		ULS 2/3	3.98	2.36	1.61	1.22	0.97	0.82	0.63	0.12	0.00	0.00	0.00	0.00
		L/100	27.19	17.53	12.65	9.70	7.73	6.32	5.28	4.47	3.83	3.31	2.88	2.53
		SLS L/150	18.12	11.69	8.43	6.46	5.15	4.21	3.52	2.98	2.55	2.21	1.93	1.68
		L/200	13.60	8.77	6.32	4.85	3.86	3.16	2.64	2.24	1.92	1.66	1.44	1.27
	III	ULS 2/4	5.31	3.14	2.15	1.59	0.47	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		ULS 2/3	3.63	2.01	1.06	0.64	0.47	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		L/100	27.19	17.53	12.65	9.70	7.73	6.32	5.28	4.47	3.83	3.31	2.88	2.53
		SLS L/150	18.12	11.69	8.43	6.46	5.15	4.21	3.52	2.98	2.55	2.21	1.93	1.68
		L/200	13.60	8.77	6.32	4.85	3.86	3.16	2.64	2.24	1.91	1.66	1.44	1.27
Multi-span system	I	ULS 2/4	6.03	3.86	2.84	2.23	1.86	1.61	1.24	0.91	0.83	0.62	0.48	0.38
		ULS 2/3	4.34	2.75	2.02	1.61	1.33	1.15	1.02	0.92	0.83	0.62	0.48	0.38
		L/100	27.22	17.61	12.75	9.80	7.81	6.38	5.30	4.46	3.79	3.25	2.80	2.43
		SLS L/150	18.15	11.74	8.50	6.53	5.21	4.26	3.54	2.98	2.53	2.17	1.87	1.63
		L/200	13.60	8.81	6.37	4.90	3.91	3.19	2.65	2.23	1.90	1.63	1.40	1.22
	II	ULS 2/4	5.82	3.70	2.69	2.14	1.41	1.04	0.45	0.17	0.03	0.00	0.00	0.00
		ULS 2/3	4.13	2.59	1.90	1.50	1.26	1.03	0.45	0.17	0.03	0.00	0.00	0.00
		L/100	27.22	17.61	12.75	9.80	7.81	6.38	5.30	4.46	3.79	3.25	2.80	2.43
		SLS L/150	18.15	11.74	8.50	6.53	5.21	4.26	3.54	2.98	2.53	2.17	1.87	1.63
		L/200	13.60	8.81	6.37	4.90	3.91	3.19	2.65	2.23	1.90	1.63	1.40	1.22
	III	ULS 2/4	5.50	3.45	2.50	0.68	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		ULS 2/3	3.82	2.35	1.68	0.68	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		L/100	27.22	17.61	12.75	9.80	7.81	6.38	5.30	4.46	3.79	3.25	2.80	2.43
		SLS L/150	18.15	11.74	8.50	6.53	5.21	4.26	3.54	2.98	2.53	2.17	1.87	1.63
		L/200	13.60	8.81	6.37	4.90	3.91	3.19	2.65	2.24	1.90	1.63	1.41	1.22

• **Maximum allowable wind pressure [kN/m<sup>2</sup>] for the length of span made of Ruukki SPB160WE panels**

*Table 10*

External facing thickness: 0.60 mm  
 Internal facing thickness: 0.50 mm  
 External temperature: +55°C; +65°C; +80°C/-20°C (summer/winter)  
 Internal temperature: +20°C/+20°C (summer/winter)  
 Minimum end support width: 70 mm  
 Minimum intermediate support width: 140 mm  
 Minimum number of fasteners at the end support: 2 or 3  
 Minimum number of fasteners at the intermediate support: 3 or 4

ULS – Ultimate Limit State  
 SLS – Serviceability Limit State

Static scheme	Colour group	Criterion	Span length [m]											
			1.00	1.50	2.00	2.50	3.00	3.50	4.00	4.50	5.00	5.50	6.00	6.50
Single-span system	I	ULS 3/0	6.06	4.04	3.03	2.42	2.02	1.73	1.51	1.35	1.21	1.10	1.01	0.94
		ULS 2/0	6.06	4.04	3.03	2.42	2.02	1.73	1.51	1.35	1.21	1.10	1.01	0.94
		L/100	31.09	19.97	14.26	10.74	8.35	6.64	5.35	4.37	3.61	3.00	2.52	2.13
		SLS L/150	20.73	13.32	9.50	7.16	5.57	4.42	3.57	2.91	2.40	2.00	1.68	1.42
		L/200	15.55	9.99	7.13	5.37	4.18	3.32	2.68	2.19	1.81	1.50	1.23	1.01
	II	ULS 3/0	6.06	4.04	3.03	2.42	2.02	1.73	1.51	1.35	1.21	1.10	1.01	0.94
		ULS 2/0	6.06	4.04	3.03	2.42	2.02	1.73	1.51	1.35	1.21	1.10	1.01	0.94
		L/100	31.09	19.97	14.26	10.74	8.35	6.64	5.35	4.37	3.61	3.00	2.52	2.13
		SLS L/150	20.73	13.32	9.50	7.16	5.57	4.42	3.57	2.91	2.40	2.00	1.68	1.42
		L/200	15.55	9.99	7.13	5.37	4.18	3.32	2.68	2.19	1.81	1.50	1.23	1.00
	III	ULS 3/0	6.06	4.04	3.03	2.42	2.02	1.73	1.51	1.35	1.21	1.10	1.01	0.94
		ULS 2/0	6.06	4.04	3.03	2.42	2.02	1.73	1.51	1.35	1.21	1.10	1.01	0.94
		L/100	31.09	19.97	14.26	10.74	8.35	6.64	5.35	4.37	3.61	3.00	2.52	2.13
		SLS L/150	20.73	13.32	9.50	7.16	5.57	4.42	3.57	2.91	2.40	2.00	1.68	1.42
		L/200	15.55	9.99	7.13	5.37	4.18	3.32	2.68	2.19	1.80	1.50	1.23	1.00
Double-span system	I	ULS 2/4	6.06	4.04	3.03	2.41	1.96	1.65	1.43	1.26	0.94	0.61	0.40	0.27
		ULS 2/3	6.06	4.04	3.03	2.41	1.96	1.65	1.43	1.26	0.94	0.61	0.40	0.27
		L/100	31.14	20.13	14.54	11.16	8.90	7.29	6.10	5.17	4.44	3.84	3.35	2.94
		SLS L/150	20.77	13.42	9.69	7.44	5.93	4.86	4.07	3.45	2.96	2.56	2.24	1.96
		L/200	15.57	10.06	7.27	5.58	4.45	3.65	3.05	2.59	2.22	1.92	1.67	1.47
	II	ULS 2/4	6.06	4.04	3.03	2.41	1.96	1.65	1.43	1.26	0.94	0.61	0.00	0.00
		ULS 2/3	6.06	4.04	3.03	2.41	1.96	1.65	1.43	1.26	0.94	0.61	0.00	0.00
		L/100	31.14	20.13	14.54	11.16	8.90	7.29	6.10	5.17	4.44	3.84	3.35	2.94
		SLS L/150	20.77	13.42	9.69	7.44	5.93	4.86	4.07	3.45	2.96	2.56	2.24	1.96
		L/200	15.57	10.06	7.27	5.58	4.45	3.65	3.05	2.59	2.22	1.92	1.67	1.47
	III	ULS 2/4	6.06	4.04	3.03	2.41	1.96	1.65	0.00	0.00	0.00	0.00	0.00	0.00
		ULS 2/3	6.06	4.04	3.03	2.41	1.96	1.65	0.00	0.00	0.00	0.00	0.00	0.00
		L/100	31.14	20.13	14.54	11.16	8.90	7.29	6.10	5.17	4.44	3.84	3.35	2.94
		SLS L/150	20.77	13.42	9.69	7.44	5.93	4.86	4.07	3.45	2.96	2.56	2.24	1.96
		L/200	15.57	10.06	7.27	5.58	4.45	3.65	3.05	2.59	2.22	1.92	1.67	1.47
Multi-span system	I	ULS 2/4	6.06	4.04	3.03	2.42	2.02	1.73	1.52	1.34	1.09	0.82	0.63	0.50
		ULS 2/3	6.06	4.04	3.03	2.42	2.02	1.73	1.52	1.34	1.09	0.82	0.63	0.50
		L/100	31.18	20.21	14.64	11.27	9.00	7.37	6.13	5.17	4.40	3.78	3.27	2.84
		SLS L/150	20.79	13.47	9.76	7.52	6.00	4.91	4.09	3.45	2.94	2.52	2.17	1.89
		L/200	15.59	10.10	7.32	5.64	4.50	3.68	3.07	2.58	2.20	1.89	1.63	1.42
	II	ULS 2/4	6.06	4.04	3.03	2.42	2.02	1.73	1.52	1.35	1.09	0.81	0.63	0.50
		ULS 2/3	6.06	4.04	3.03	2.42	2.02	1.73	1.52	1.35	1.09	0.81	0.63	0.50
		L/100	31.18	20.21	14.64	11.27	9.00	7.37	6.13	5.17	4.40	3.78	3.27	2.84
		SLS L/150	20.79	13.47	9.76	7.52	6.00	4.91	4.09	3.45	2.94	2.52	2.17	1.89
		L/200	15.59	10.10	7.32	5.64	4.50	3.68	3.07	2.58	2.20	1.89	1.63	1.42
	III	ULS 2/4	6.06	4.04	3.03	2.42	2.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		ULS 2/3	6.06	4.04	3.03	2.42	2.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		L/100	31.18	20.21	14.64	11.27	9.00	7.37	6.13	5.17	4.40	3.78	3.27	2.84
		SLS L/150	20.79	13.47	9.76	7.52	6.00	4.91	4.09	3.45	2.94	2.52	2.17	1.89
		L/200	15.59	10.10	7.32	5.64	4.50	3.68	3.07	2.58	2.20	1.89	1.63	1.42

● **Maximum allowable wind suction [kN/m<sup>2</sup>] for the length of span made of Ruukki SPB160WE panels**

*Table 11*

External facing thickness: 0.60 mm  
 Internal facing thickness: 0.50 mm  
 External temperature: +55°C; +65°C; +80°C/-20°C (summer/winter)  
 Internal temperature: +20°C/+20°C (summer/winter)  
 Minimum end support width: 70 mm  
 Minimum intermediate support width: 140 mm  
 Minimum number of fasteners at the end support: 2 or 3  
 Minimum number of fasteners at the intermediate support: 3 or 4

ULS – Ultimate Limit State  
 SLS – Serviceability Limit State

Static scheme	Colour group	Criterion	Span length [m]											
			1.00	1.50	2.00	2.50	3.00	3.50	4.00	4.50	5.00	5.50	6.00	6.50
Single-span system	I	ULS 3/0	9.56	6.27	4.67	3.71	3.09	2.64	2.30	2.05	1.84	1.67	1.53	1.36
		ULS 2/0	9.56	6.27	4.67	3.71	3.09	2.64	2.30	2.05	1.84	1.67	1.53	1.36
		L/100	31.09	19.97	14.25	10.73	8.35	6.63	5.35	4.37	3.61	3.00	2.52	2.14
		SLS L/150	20.73	13.32	9.50	7.16	5.57	4.42	3.56	2.91	2.40	2.00	1.68	1.42
		L/200	15.55	9.98	7.12	5.37	4.17	3.32	2.67	2.19	1.80	1.50	1.26	1.06
	II	ULS 3/0	9.56	6.27	4.67	3.71	3.09	2.64	2.30	2.05	1.84	1.67	1.53	1.36
		ULS 2/0	9.56	6.27	4.67	3.71	3.09	2.64	2.30	2.05	1.84	1.67	1.53	1.36
		L/100	31.09	19.97	14.25	10.73	8.35	6.63	5.35	4.37	3.60	3.00	2.52	2.13
		SLS L/150	20.73	13.32	9.50	7.16	5.57	4.42	3.56	2.91	2.40	2.00	1.68	1.42
		L/200	15.55	9.98	7.12	5.37	4.17	3.31	2.68	2.19	1.80	1.45	1.17	0.95
	III	ULS 3/0	9.56	6.27	4.67	3.71	3.09	2.64	2.30	2.05	1.84	1.67	1.53	1.36
		ULS 2/0	9.56	6.27	4.67	3.71	3.09	2.64	2.30	2.05	1.84	1.67	1.53	1.36
		L/100	31.09	19.97	14.25	10.73	8.35	6.63	5.35	4.37	3.61	3.00	2.52	2.13
		SLS L/150	20.73	13.32	9.50	7.16	5.56	4.42	3.57	2.91	2.39	1.93	1.56	1.27
		L/200	15.55	9.98	7.13	5.37	4.17	3.31	2.61	2.03	1.59	1.26	0.92	0.64
Double-span system	I	ULS 2/4	5.91	3.66	2.59	1.99	1.61	1.34	1.17	1.03	0.79	0.59	0.52	0.38
		ULS 2/3	4.22	2.56	1.78	1.36	1.10	0.93	0.80	0.71	0.64	0.58	0.52	0.38
		L/100	31.14	20.12	14.54	11.15	8.90	7.29	6.10	5.17	4.44	3.84	3.35	2.94
		SLS L/150	20.76	13.42	9.69	7.44	5.93	4.86	4.06	3.45	2.96	2.56	2.23	1.97
		L/200	15.57	10.06	7.26	5.58	4.45	3.65	3.05	2.59	2.22	1.92	1.68	1.48
	II	ULS 2/4	5.67	3.45	2.41	1.84	1.46	1.24	0.80	0.62	0.24	0.04	0.00	0.00
		ULS 2/3	3.98	2.35	1.61	1.21	0.97	0.81	0.71	0.62	0.24	0.04	0.00	0.00
		L/100	31.14	20.12	14.54	11.15	8.90	7.29	6.10	5.17	4.44	3.84	3.35	2.94
		SLS L/150	20.76	13.42	9.69	7.44	5.93	4.86	4.06	3.45	2.96	2.56	2.23	1.97
		L/200	15.57	10.06	7.26	5.58	4.45	3.65	3.05	2.59	2.22	1.92	1.68	1.48
	III	ULS 2/4	5.31	3.13	2.14	1.58	1.23	0.20	0.00	0.00	0.00	0.00	0.00	0.00
		ULS 2/3	3.62	1.99	1.02	0.59	0.42	0.20	0.00	0.00	0.00	0.00	0.00	0.00
		L/100	31.14	20.12	14.54	11.15	8.90	7.29	6.10	5.17	4.44	3.84	3.35	2.94
		SLS L/150	20.76	13.42	9.69	7.44	5.93	4.86	4.06	3.45	2.96	2.56	2.23	1.97
		L/200	15.57	10.06	7.26	5.58	4.45	3.65	3.05	2.59	2.22	1.92	1.67	1.47
Multi-span system	I	ULS 2/4	6.03	3.86	2.84	2.25	1.85	1.60	1.41	1.26	0.91	0.75	0.70	0.59
		ULS 2/3	4.34	2.75	2.01	1.60	1.34	1.15	1.01	0.91	0.82	0.75	0.70	0.59
		L/100	31.19	20.21	14.64	11.27	9.01	7.37	6.13	5.17	4.40	3.78	3.27	2.84
		SLS L/150	20.79	13.47	9.76	7.51	6.00	4.91	4.09	3.45	2.93	2.52	2.18	1.89
		L/200	15.59	10.10	7.32	5.64	4.50	3.68	3.06	2.59	2.20	1.89	1.64	1.42
	II	ULS 2/4	5.81	3.69	2.71	2.13	1.78	1.21	0.96	0.63	0.38	0.24	0.15	0.09
		ULS 2/3	4.12	2.58	1.89	1.49	1.25	1.08	0.96	0.63	0.38	0.24	0.15	0.09
		L/100	31.19	20.21	14.64	11.27	9.01	7.37	6.13	5.17	4.40	3.78	3.27	2.84
		SLS L/150	20.79	13.47	9.76	7.51	6.00	4.91	4.09	3.45	2.93	2.52	2.18	1.89
		L/200	15.59	10.10	7.32	5.64	4.50	3.68	3.06	2.59	2.20	1.89	1.63	1.42
	III	ULS 2/4	5.50	3.44	2.48	1.34	0.18	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		ULS 2/3	3.81	2.33	1.67	1.34	0.18	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		L/100	31.19	20.21	14.64	11.27	9.01	7.37	6.13	5.17	4.40	3.78	3.27	2.84
		SLS L/150	20.79	13.47	9.76	7.51	6.00	4.91	4.09	3.45	2.93	2.52	2.18	1.89
		L/200	15.59	10.10	7.32	5.64	4.50	3.68	3.07	2.59	2.21	1.89	1.63	1.42

• **Maximum allowable wind pressure [kN/m<sup>2</sup>] for the length of span made of Ruukki SPB200WE panels**

*Table 12*

External facing thickness: 0.60 mm  
 Internal facing thickness: 0.50 mm  
 External temperature: +55°C; +65°C; +80°C/-20°C (summer/winter)  
 Internal temperature: +20°C/+20°C (summer/winter)  
 Minimum end support width: 70 mm  
 Minimum intermediate support width: 140 mm  
 Minimum number of fasteners at the end support: 2 or 3  
 Minimum number of fasteners at the intermediate support: 3 or 4

ULS – Ultimate Limit State  
 SLS – Serviceability Limit State

Static scheme	Colour group	Criterion	Span length [m]											
			1.00	1.50	2.00	2.50	3.00	3.50	4.00	4.50	5.00	5.50	6.00	6.50
Single-span system	I	ULS 3/0	6.06	4.04	3.03	2.42	2.02	1.73	1.51	1.35	1.21	1.10	1.01	0.93
		ULS 2/0	6.06	4.04	3.03	2.42	2.02	1.73	1.51	1.35	1.21	1.10	1.01	0.93
		L/100	39.16	25.34	18.26	13.90	10.95	8.80	7.19	5.94	4.96	4.18	3.54	3.02
		SLS L/150	26.12	16.91	12.17	9.27	7.29	5.87	4.79	3.96	3.30	2.78	2.36	2.01
		L/200	19.59	12.68	9.14	6.95	5.47	4.40	3.60	2.97	2.48	2.08	1.77	1.51
	II	ULS 3/0	6.06	4.04	3.03	2.42	2.02	1.73	1.51	1.35	1.21	1.10	1.01	0.93
		ULS 2/0	6.06	4.04	3.03	2.42	2.02	1.73	1.51	1.35	1.21	1.10	1.01	0.93
		L/100	39.16	25.34	18.26	13.90	10.95	8.80	7.19	5.94	4.96	4.18	3.54	3.02
		SLS L/150	26.12	16.91	12.17	9.27	7.29	5.87	4.79	3.96	3.30	2.78	2.36	2.01
		L/200	19.59	12.68	9.14	6.95	5.47	4.40	3.60	2.97	2.48	2.08	1.77	1.51
	III	ULS 3/0	6.06	4.04	3.03	2.42	2.02	1.73	1.51	1.35	1.21	1.10	1.01	0.93
		ULS 2/0	6.06	4.04	3.03	2.42	2.02	1.73	1.51	1.35	1.21	1.10	1.01	0.93
		L/100	39.16	25.34	18.26	13.90	10.95	8.80	7.19	5.94	4.96	4.18	3.54	3.02
		SLS L/150	26.12	16.91	12.17	9.27	7.29	5.87	4.79	3.96	3.30	2.78	2.36	2.01
		L/200	19.59	12.68	9.14	6.95	5.47	4.40	3.60	2.97	2.47	2.08	1.77	1.51
Double-span system	I	ULS 2/4	6.06	4.04	3.03	2.40	1.95	1.64	1.41	1.24	1.00	0.58	0.33	0.18
		ULS 2/3	6.06	4.04	3.03	2.40	1.95	1.64	1.41	1.24	1.00	0.58	0.33	0.18
		L/100	39.21	25.46	18.50	14.29	11.46	9.45	7.94	6.78	5.85	5.10	4.47	3.95
		SLS L/150	26.15	16.97	12.34	9.53	7.64	6.30	5.30	4.52	3.90	3.39	2.98	2.63
		L/200	19.60	12.73	9.25	7.14	5.73	4.72	3.97	3.39	2.93	2.55	2.23	1.97
	II	ULS 2/4	6.06	4.04	3.03	2.40	1.95	1.64	1.41	1.24	1.00	0.58	0.00	0.00
		ULS 2/3	6.06	4.04	3.03	2.40	1.95	1.64	1.41	1.24	1.00	0.58	0.00	0.00
		L/100	39.21	25.46	18.50	14.29	11.46	9.45	7.94	6.78	5.85	5.10	4.47	3.95
		SLS L/150	26.15	16.97	12.34	9.53	7.64	6.30	5.30	4.52	3.90	3.39	2.98	2.63
		L/200	19.60	12.73	9.25	7.14	5.73	4.72	3.97	3.39	2.93	2.55	2.23	1.97
	III	ULS 2/4	6.06	4.04	3.03	2.40	1.95	1.64	0.00	0.00	0.00	0.00	0.00	0.00
		ULS 2/3	6.06	4.04	3.03	2.40	1.95	1.64	0.00	0.00	0.00	0.00	0.00	0.00
		L/100	39.21	25.46	18.50	14.29	11.46	9.45	7.94	6.78	5.85	5.10	4.47	3.95
		SLS L/150	26.15	16.97	12.34	9.53	7.64	6.30	5.30	4.52	3.90	3.39	2.98	2.63
		L/200	19.60	12.73	9.25	7.14	5.73	4.72	3.97	3.39	2.93	2.55	2.23	1.97
Multi-span system	I	ULS 2/4	6.06	4.04	3.03	2.42	2.02	1.73	1.51	1.35	0.99	0.70	0.50	0.38
		ULS 2/3	6.06	4.04	3.03	2.42	2.02	1.73	1.51	1.35	0.99	0.70	0.50	0.38
		L/100	39.25	25.54	18.61	14.42	11.60	9.56	8.02	6.81	5.85	5.07	4.41	3.86
		SLS L/150	26.17	17.03	12.41	9.61	7.73	6.37	5.35	4.55	3.90	3.37	2.94	2.58
		L/200	19.61	12.78	9.31	7.21	5.80	4.78	4.01	3.41	2.93	2.53	2.21	1.93
	II	ULS 2/4	6.06	4.04	3.03	2.42	2.02	1.73	1.51	1.35	0.99	0.69	0.51	0.38
		ULS 2/3	6.06	4.04	3.03	2.42	2.02	1.73	1.51	1.35	0.99	0.69	0.51	0.38
		L/100	39.25	25.54	18.61	14.42	11.60	9.56	8.02	6.81	5.85	5.07	4.41	3.86
		SLS L/150	26.17	17.03	12.41	9.61	7.73	6.37	5.35	4.55	3.90	3.37	2.94	2.58
		L/200	19.61	12.78	9.31	7.21	5.80	4.78	4.01	3.41	2.93	2.53	2.21	1.93
	III	ULS 2/4	6.06	3.89	2.91	2.38	2.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		ULS 2/3	6.06	3.89	2.91	2.38	2.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		L/100	39.25	25.54	18.61	14.42	11.60	9.56	8.02	6.81	5.85	5.07	4.41	3.86
		SLS L/150	26.17	17.03	12.41	9.61	7.73	6.37	5.35	4.55	3.90	3.37	2.94	2.58
		L/200	19.61	12.78	9.31	7.21	5.80	4.78	4.01	3.41	2.93	2.53	2.21	1.93

• **Maximum allowable wind suction [kN/m<sup>2</sup>] for the length of span made of Ruukki SPB200WE panels**

*Table 13*

External facing thickness: 0.60 mm  
 Internal facing thickness: 0.50 mm  
 External temperature: +55°C; +65°C; +80°C/-20°C (summer/winter)  
 Internal temperature: +20°C/+20°C (summer/winter)  
 Minimum end support width: 70 mm  
 Minimum intermediate support width: 140 mm  
 Minimum number of fasteners at the end support: 2 or 3  
 Minimum number of fasteners at the intermediate support: 3 or 4

ULS – Ultimate Limit State  
 SLS – Serviceability Limit State

Static scheme	Colour group	Criterion	Span length [m]											
			1.00	1.50	2.00	2.50	3.00	3.50	4.00	4.50	5.00	5.50	6.00	6.50
Single-span system	I	ULS 3/0	9.56	6.27	4.67	3.71	3.09	2.64	2.30	2.05	1.84	1.67	1.53	1.41
		ULS 2/0	9.56	6.27	4.67	3.71	3.09	2.64	2.30	2.05	1.84	1.67	1.53	1.41
		L/100	26.12	16.91	12.17	9.27	7.29	5.87	4.79	3.96	3.31	2.78	2.36	2.01
		SLS L/150	19.58	12.67	9.13	6.95	5.47	4.40	3.59	2.97	2.48	2.09	1.77	1.51
		L/200	9.56	6.27	4.67	3.71	3.09	2.64	2.30	2.05	1.84	1.67	1.53	1.41
	II	ULS 3/0	9.56	6.27	4.67	3.71	3.09	2.64	2.30	2.05	1.84	1.67	1.53	1.41
		ULS 2/0	39.16	25.36	18.26	13.91	10.94	8.80	7.19	5.94	4.96	4.18	3.54	3.02
		L/100	26.12	16.91	12.17	9.27	7.29	5.87	4.80	3.96	3.31	2.79	2.36	2.01
		SLS L/150	19.58	12.67	9.13	6.95	5.47	4.40	3.59	2.97	2.48	2.09	1.77	1.49
		L/200	9.56	6.27	4.67	3.71	3.09	2.64	2.30	2.05	1.84	1.67	1.53	1.41
	III	ULS 3/0	9.56	6.27	4.67	3.71	3.09	2.64	2.30	2.05	1.84	1.67	1.53	1.41
		ULS 2/0	39.16	25.36	18.26	13.91	10.94	8.80	7.19	5.94	4.96	4.18	3.55	3.02
		L/100	26.12	16.91	12.17	9.27	7.29	5.87	4.79	3.96	3.31	2.78	2.36	1.98
		SLS L/150	19.58	12.67	9.13	6.95	5.47	4.40	3.59	2.98	2.41	1.96	1.60	1.31
		L/200	5.92	3.66	2.58	1.97	1.58	1.33	1.13	1.00	0.90	0.65	0.51	0.45
Double-span system	I	ULS 2/4	4.22	2.55	1.76	1.33	1.06	0.89	0.76	0.67	0.61	0.55	0.51	0.45
		ULS 2/3	39.21	25.47	18.50	14.28	11.47	9.45	7.94	6.78	5.85	5.10	4.48	3.95
		L/100	26.14	16.98	12.34	9.53	7.65	6.30	5.30	4.52	3.91	3.40	2.98	2.64
		SLS L/150	19.60	12.73	9.25	7.14	5.73	4.72	3.97	3.40	2.92	2.55	2.24	1.98
		L/200	5.68	3.44	2.38	1.80	1.42	1.19	1.03	0.52	0.38	0.08	0.00	0.00
	II	ULS 2/4	3.98	2.33	1.57	1.10	0.82	0.65	0.56	0.52	0.38	0.08	0.00	0.00
		ULS 2/3	39.21	25.47	18.50	14.28	11.47	9.45	7.94	6.78	5.85	5.10	4.48	3.95
		L/100	26.14	16.98	12.34	9.53	7.65	6.30	5.30	4.52	3.91	3.40	2.98	2.64
		SLS L/150	19.60	12.73	9.25	7.14	5.73	4.72	3.97	3.40	2.92	2.55	2.24	1.98
		L/200	5.30	3.11	2.10	1.43	1.06	0.14	0.00	0.00	0.00	0.00	0.00	0.00
	III	ULS 2/4	3.61	1.87	0.85	0.41	0.20	0.14	0.00	0.00	0.00	0.00	0.00	0.00
		ULS 2/3	39.21	25.47	18.50	14.28	11.47	9.45	7.94	6.78	5.85	5.10	4.48	3.95
		L/100	26.14	16.98	12.34	9.53	7.65	6.30	5.30	4.52	3.91	3.40	2.98	2.64
		SLS L/150	19.60	12.73	9.25	7.14	5.73	4.72	3.97	3.40	2.93	2.55	2.24	1.98
		L/200	6.02	3.83	2.80	2.22	1.82	1.56	1.38	1.24	1.05	0.75	0.68	0.63
Multi-span system	I	ULS 2/4	4.32	2.71	1.97	1.56	1.30	1.11	0.98	0.88	0.80	0.73	0.68	0.63
		ULS 2/3	39.24	25.54	18.62	14.42	11.59	9.55	8.02	6.81	5.85	5.07	4.41	3.87
		L/100	26.17	17.03	12.42	9.61	7.73	6.37	5.35	4.55	3.90	3.38	2.94	2.58
		SLS L/150	19.61	12.77	9.31	7.21	5.80	4.78	4.01	3.41	2.93	2.54	2.21	1.93
		L/200	5.80	3.65	2.66	2.07	1.73	1.49	0.92	0.70	0.38	0.19	0.08	0.02
	II	ULS 2/4	4.10	2.53	1.83	1.45	1.19	1.03	0.92	0.70	0.38	0.19	0.08	0.02
		ULS 2/3	39.24	25.54	18.62	14.42	11.59	9.55	8.02	6.81	5.85	5.07	4.41	3.87
		L/100	26.17	17.03	12.42	9.61	7.73	6.37	5.35	4.55	3.90	3.38	2.94	2.58
		SLS L/150	19.61	12.77	9.31	7.21	5.80	4.78	4.01	3.41	2.93	2.54	2.21	1.94
		L/200	5.46	3.38	2.41	1.90	0.57	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	III	ULS 2/4	3.76	2.26	1.59	1.26	0.57	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		ULS 2/3	39.24	25.54	18.62	14.42	11.59	9.55	8.02	6.81	5.85	5.07	4.41	3.87
		L/100	26.17	17.03	12.42	9.61	7.73	6.37	5.35	4.55	3.90	3.38	2.95	2.58
		SLS L/150	19.61	12.77	9.31	7.21	5.80	4.78	4.01	3.41	2.93	2.53	2.21	1.93
		L/200	19.61	12.77	9.31	7.21	5.80	4.78	4.01	3.41	2.93	2.53	2.21	1.93

• **Maximum allowable wind pressure [kN/m<sup>2</sup>] for the length of span made of Ruukki SP2D100WE panels**

*Table 14*

External facing thickness: 0.50 mm  
 Internal facing thickness: 0.40 mm  
 External temperature: +55°C; +65°C; +80°C/-20°C (summer/winter)  
 Internal temperature: +20°C/+20°C (summer/winter)  
 Minimum end support width: 40 mm  
 Minimum intermediate support width: 60 mm  
 Minimum number of fasteners at the end support: 2 or 3  
 Minimum number of fasteners at the intermediate support: 3 or 4

ULS - Ultimate Limit State  
 ULS 2/0 - Ultimate Limit State; 2 fasteners at an end support  
 ULS 1/0 - Ultimate Limit State; 1 fastener at an end support  
 ULS 2/3 - Ultimate Limit State; 2 fasteners at an end support / 3 fasteners at an intermediate support  
 ULS 1/3 - Ultimate Limit State; 1 fastener at an end support / 3 fasteners at an intermediate support  
 SLS - Serviceability Limit State

Static scheme	Colour group	Criterion	Span length [m]											
			1.00	1.50	2.00	2.50	3.00	3.50	4.00	4.50	5.00	5.50	6.00	6.50
Single-span system	I	ULS	6.06	4.04	3.03	2.43	2.02	1.73	1.52	1.35	1.21	1.10	1.01	0.93
		L/100	19.06	12.04	8.42	6.20	4.70	3.65	2.88	2.30	1.86	1.52	1.25	1.04
		SLS L/150	12.71	8.03	5.61	4.13	3.14	2.43	1.92	1.53	1.20	0.95	0.75	0.60
		L/200	9.53	6.02	4.21	3.10	2.36	1.82	1.36	1.03	0.79	0.57	0.38	0.25
	II	ULS	6.06	4.04	3.03	2.43	2.02	1.73	1.52	1.35	1.21	1.10	1.01	0.93
		L/100	19.06	12.04	8.42	6.20	4.70	3.65	2.88	2.30	1.86	1.52	1.25	1.04
		SLS L/150	12.71	8.03	5.61	4.13	3.14	2.43	1.92	1.53	1.20	0.95	0.75	0.60
		L/200	9.53	6.02	4.21	3.10	2.36	1.82	1.36	1.03	0.79	0.57	0.38	0.25
	III	ULS	6.06	4.04	3.03	2.43	2.02	1.73	1.52	1.35	1.21	1.10	1.01	0.93
		L/100	19.06	12.04	8.42	6.20	4.70	3.65	2.88	2.30	1.86	1.52	1.25	1.04
		SLS L/150	12.71	8.03	5.61	4.13	3.14	2.43	1.92	1.53	1.20	0.95	0.75	0.60
		L/200	9.53	6.02	4.21	3.10	2.36	1.82	1.36	1.03	0.79	0.57	0.00	0.00
Double-span system	I	ULS	6.06	4.04	3.03	2.42	1.98	1.41	0.71	0.35	0.17	0.07	0.00	0.00
		L/100	19.18	12.30	8.82	6.70	5.27	4.24	3.48	2.89	2.42	2.04	1.73	1.48
		SLS L/150	12.76	8.14	5.82	4.41	3.49	2.82	2.33	1.95	1.66	1.41	1.22	1.06
		L/200	9.56	6.11	4.37	3.31	2.61	2.12	1.75	1.47	1.24	1.06	0.91	0.79
	II	ULS	6.06	4.04	3.03	2.42	1.98	1.41	0.00	0.00	0.00	0.00	0.00	0.00
		L/100	19.14	12.22	8.72	6.62	5.22	4.24	3.49	2.93	2.49	2.12	1.83	1.59
		SLS L/150	12.76	8.14	5.82	4.41	3.49	2.82	2.33	1.95	1.66	1.41	1.22	1.06
		L/200	9.56	6.11	4.37	3.31	2.61	2.12	1.75	1.47	1.24	1.06	0.91	0.79
	III	ULS	6.06	4.04	3.03	2.42	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		L/100	19.14	12.22	8.72	6.62	5.22	4.24	3.49	2.93	2.49	2.12	1.83	1.59
		SLS L/150	12.76	8.14	5.82	4.41	3.49	2.82	2.33	1.95	1.66	1.41	1.22	1.06
		L/200	9.56	6.11	4.37	3.31	2.61	2.12	1.75	1.47	1.24	1.06	0.91	0.79
Multi-span system	I	ULS	6.06	4.04	3.03	2.43	2.02	1.30	0.81	0.54	0.38	0.28	0.20	0.17
		L/100	19.18	12.30	8.82	6.70	5.27	4.24	3.48	2.89	2.42	2.04	1.73	1.48
		SLS L/150	12.78	8.19	5.88	4.46	3.51	2.83	2.32	1.92	1.61	1.36	1.16	0.99
		L/200	9.59	6.15	4.41	3.35	2.64	2.12	1.74	1.44	1.21	1.02	0.87	0.74
	II	ULS	6.06	4.04	3.03	2.43	2.02	1.30	0.81	0.00	0.00	0.00	0.00	0.00
		L/100	19.18	12.30	8.82	6.70	5.27	4.24	3.48	2.89	2.42	2.04	1.73	1.48
		SLS L/150	12.78	8.19	5.88	4.46	3.51	2.83	2.32	1.92	1.61	1.36	1.16	0.99
		L/200	9.59	6.15	4.41	3.35	2.64	2.12	1.74	1.44	1.21	1.02	0.87	0.74
	III	ULS	6.06	4.04	3.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		L/100	19.18	12.30	8.82	6.70	5.27	4.24	3.48	2.89	2.42	2.04	1.73	1.48
		SLS L/150	12.78	8.19	5.88	4.46	3.51	2.83	2.32	1.92	1.61	1.36	1.16	0.99
		L/200	9.59	6.15	4.41	3.35	2.64	2.12	1.74	1.44	1.21	1.02	0.87	0.74

• **Maximum allowable wind suction [kN/m<sup>2</sup>] for the length of span made of Ruukki SP2D100WE panels**

*Table 15*

External facing thickness: 0.50 mm  
 Internal facing thickness: 0.40 mm  
 External temperature: +55°C; +65°C; +80°C/-20°C (summer/winter)  
 Internal temperature: +20°C/+20°C (summer/winter)  
 Minimum end support width: 40 mm  
 Minimum intermediate support width: 60 mm  
 Minimum number of fasteners at the end support: 2 or 3  
 Minimum number of fasteners at the intermediate support: 3 or 4

ULS - Ultimate Limit State  
 ULS 2/0 - Ultimate Limit State; 2 fasteners at an end support  
 ULS 1/0 - Ultimate Limit State; 1 fastener at an end support  
 ULS 2/3 - Ultimate Limit State; 2 fasteners at an end support / 3 fasteners at an intermediate support  
 ULS 1/3 - Ultimate Limit State; 1 fastener at an end support / 3 fasteners at an intermediate support  
 SLS - Serviceability Limit State

Static scheme	Colour group	Criterion	Span length [m]											
			1.00	1.50	2.00	2.50	3.00	3.50	4.00	4.50	5.00	5.50	6.00	6.50
Single-span system	I	ULS	9.66	6.34	4.72	3.75	3.12	2.67	2.24	1.77	1.43	1.19	1.00	0.85
		L/100	19.06	12.04	8.42	6.20	4.70	3.64	2.87	2.29	1.85	1.52	1.25	1.04
		SLS L/150	9.53	6.02	4.21	3.10	2.35	1.82	1.43	1.09	0.85	0.66	0.52	0.37
		L/200	9.53	6.02	4.21	3.10	2.35	1.82	1.43	1.09	0.85	0.66	0.52	0.37
	II	ULS	9.66	6.34	4.72	3.75	3.12	2.67	2.24	1.77	1.43	1.19	1.00	0.85
		L/100	19.06	12.04	8.42	6.20	4.70	3.64	2.87	2.29	1.85	1.52	1.25	1.02
		SLS L/150	12.71	8.03	5.62	4.13	3.14	2.43	1.92	1.48	1.15	0.91	0.71	0.53
		L/200	9.53	6.02	4.21	3.10	2.35	1.74	1.29	0.97	0.67	0.43	0.26	0.14
	III	ULS	9.66	6.34	4.72	3.75	3.12	2.67	2.24	1.77	1.43	1.19	1.00	0.85
		L/100	19.06	12.04	8.42	6.20	4.70	3.64	2.87	2.29	1.80	1.42	1.12	0.90
		SLS L/150	12.71	8.03	5.62	4.13	3.14	2.32	1.72	1.30	0.89	0.57	0.36	0.18
		L/200	9.53	6.02	4.21	3.01	2.12	1.49	0.88	0.48	0.20	0.01	0.00	0.00
Double-span system	I	ULS	7.77	4.88	3.50	2.72	2.20	1.62	0.89	0.51	0.30	0.18	0.11	0.00
		L/100	19.14	12.22	8.72	6.62	5.22	4.23	3.50	2.93	2.48	2.12	1.82	1.58
		SLS L/150	12.75	8.15	5.82	4.41	3.48	2.82	2.33	1.95	1.65	1.41	1.22	1.06
		L/200	9.56	6.11	4.36	3.31	2.61	2.12	1.75	1.46	1.24	1.06	0.91	0.79
	II	ULS	7.54	4.69	3.34	2.56	1.55	0.44	0.00	0.00	0.00	0.00	0.00	0.00
		L/100	19.14	12.22	8.72	6.62	5.22	4.23	3.50	2.93	2.48	2.12	1.82	1.58
		SLS L/150	12.75	8.15	5.82	4.41	3.48	2.82	2.33	1.95	1.65	1.41	1.22	1.06
		L/200	9.56	6.11	4.36	3.31	2.61	2.12	1.75	1.46	1.24	1.06	0.91	0.79
	III	ULS	7.19	4.40	3.07	0.99	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		L/100	19.14	12.22	8.72	6.62	5.22	4.23	3.50	2.93	2.48	2.12	1.82	1.58
		SLS L/150	12.75	8.15	5.82	4.41	3.48	2.82	2.33	1.95	1.65	1.41	1.22	1.06
		L/200	9.56	6.11	4.36	3.31	2.61	2.12	1.75	1.46	1.24	1.06	0.91	0.78
Multi-span system	I	ULS	7.85	5.09	3.77	3.00	2.51	1.52	0.99	0.68	0.50	0.38	0.29	0.24
		L/100	19.17	12.29	8.82	6.69	5.27	4.24	3.48	2.89	2.41	2.04	1.73	1.49
		SLS L/150	12.78	8.20	5.87	4.46	3.52	2.83	2.32	1.92	1.61	1.36	1.16	1.00
		L/200	9.59	6.15	4.41	3.35	2.64	2.12	1.74	1.44	1.21	1.02	0.87	0.74
	II	ULS	7.66	4.95	3.67	2.50	0.94	0.34	0.09	0.00	0.00	0.00	0.00	0.00
		L/100	19.17	12.29	8.82	6.69	5.27	4.24	3.48	2.89	2.41	2.04	1.73	1.49
		SLS L/150	12.78	8.20	5.87	4.46	3.52	2.83	2.32	1.92	1.61	1.36	1.16	1.00
		L/200	9.59	6.15	4.41	3.35	2.64	2.12	1.74	1.44	1.21	1.02	0.87	0.74
	III	ULS	7.37	4.73	1.66	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		L/100	19.17	12.29	8.82	6.69	5.27	4.24	3.48	2.89	2.41	2.04	1.73	1.49
		SLS L/150	12.78	8.20	5.87	4.46	3.52	2.83	2.32	1.92	1.61	1.36	1.16	1.00
		L/200	9.59	6.15	4.41	3.35	2.64	2.12	1.74	1.44	1.21	1.00	0.83	0.69

• **Maximum allowable wind pressure [kN/m<sup>2</sup>] for the length of span made of Ruukki SP2D120WE panels**

*Table 16*

External facing thickness: 0.50 mm  
 Internal facing thickness: 0.40 mm  
 External temperature: +55°C; +65°C; +80°C/-20°C (summer/winter)  
 Internal temperature: +20°C/+20°C (summer/winter)  
 Minimum end support width: 40 mm  
 Minimum intermediate support width: 60 mm  
 Minimum number of fasteners at the end support: 2 or 3  
 Minimum number of fasteners at the intermediate support: 3 or 4

ULS - Ultimate Limit State  
 ULS 2/0 - Ultimate Limit State; 2 fasteners at an end support  
 ULS 1/0 - Ultimate Limit State; 1 fastener at an end support  
 ULS 2/3 - Ultimate Limit State; 2 fasteners at an end support / 3 fasteners at an intermediate support  
 ULS 1/3 - Ultimate Limit State; 1 fastener at an end support j / 3 fasteners at an intermediate support  
 SLS - Serviceability Limit State

Static scheme	Colour group	Criterion	Span length [m]											
			1.00	1.50	2.00	2.50	3.00	3.50	4.00	4.50	5.00	5.50	6.00	6.50
Single-span system	I	ULS	6.06	4.04	3.03	2.42	2.02	1.73	1.51	1.35	1.21	1.10	1.01	0.93
		L/100	23.04	14.69	10.38	7.73	5.93	4.66	3.71	3.00	2.45	2.02	1.68	1.41
		SLS L/150	15.37	9.79	6.92	5.15	3.96	3.10	2.47	1.99	1.63	1.34	1.09	0.89
		L/200	11.52	7.35	5.19	3.86	2.97	2.33	1.86	1.46	1.14	0.90	0.72	0.55
		ULS	6.06	4.04	3.03	2.42	2.02	1.73	1.51	1.35	1.21	1.10	1.01	0.93
		L/100	23.04	14.69	10.38	7.73	5.93	4.66	3.71	3.00	2.45	2.02	1.68	1.41
	II	SLS L/150	15.37	9.79	6.92	5.15	3.96	3.10	2.47	1.99	1.63	1.34	1.09	0.89
		L/200	11.52	7.35	5.19	3.86	2.97	2.33	1.86	1.46	1.14	0.90	0.72	0.55
		ULS	6.06	4.04	3.03	2.42	2.02	1.73	1.51	1.35	1.21	1.10	1.01	0.93
		L/100	23.04	14.69	10.38	7.73	5.93	4.66	3.71	3.00	2.45	2.02	1.68	1.41
		SLS L/150	15.37	9.79	6.92	5.15	3.96	3.10	2.47	1.99	1.63	1.34	1.09	0.89
		L/200	11.52	7.35	5.19	3.86	2.97	2.33	1.86	1.46	1.14	0.90	0.71	0.54
Double-span system	I	ULS	6.06	4.04	3.03	2.41	1.97	1.67	1.14	0.61	0.32	0.17	0.07	0.02
		L/100	23.15	14.92	10.76	8.23	6.52	5.30	4.37	3.66	3.09	2.63	2.25	1.94
		SLS L/150	15.40	9.89	7.10	5.42	4.30	3.50	2.91	2.45	2.09	1.80	1.56	1.36
		L/200	11.56	7.42	5.33	4.07	3.23	2.63	2.18	1.85	1.57	1.35	1.17	1.02
		ULS	6.06	4.04	3.03	2.41	1.97	1.67	1.14	0.00	0.00	0.00	0.00	0.00
		L/100	23.11	14.85	10.65	8.13	6.45	5.26	4.37	3.68	3.14	2.70	2.34	2.04
	II	SLS L/150	15.40	9.89	7.10	5.42	4.30	3.50	2.91	2.45	2.09	1.80	1.56	1.36
		L/200	11.56	7.42	5.33	4.07	3.23	2.63	2.18	1.85	1.57	1.35	1.17	1.02
		ULS	6.06	4.04	3.03	2.41	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		L/100	23.11	14.85	10.65	8.13	6.45	5.26	4.37	3.68	3.14	2.70	2.34	2.04
		SLS L/150	15.40	9.89	7.10	5.42	4.30	3.50	2.91	2.45	2.09	1.80	1.56	1.36
		L/200	11.56	7.42	5.33	4.07	3.23	2.63	2.18	1.85	1.57	1.35	1.17	1.02
Multi-span system	I	ULS	6.06	4.04	3.03	2.42	2.02	1.73	1.12	0.74	0.52	0.37	0.28	0.22
		L/100	23.15	14.92	10.76	8.23	6.52	5.30	4.37	3.66	3.09	2.63	2.25	1.94
		SLS L/150	15.42	9.95	7.17	5.49	4.35	3.52	2.91	2.44	2.06	1.75	1.50	1.29
		L/200	11.57	7.46	5.38	4.11	3.26	2.65	2.19	1.83	1.54	1.31	1.13	0.97
		ULS	6.06	4.04	3.03	2.42	2.02	1.73	1.12	0.74	0.00	0.00	0.00	0.00
		L/100	23.15	14.92	10.76	8.23	6.52	5.30	4.37	3.66	3.09	2.63	2.25	1.94
	II	SLS L/150	15.42	9.95	7.17	5.49	4.35	3.52	2.91	2.44	2.06	1.75	1.50	1.29
		L/200	11.57	7.46	5.38	4.11	3.26	2.65	2.19	1.83	1.54	1.31	1.13	0.97
		ULS	6.06	4.04	3.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		L/100	23.15	14.92	10.76	8.23	6.52	5.30	4.37	3.66	3.09	2.63	2.25	1.94
		SLS L/150	15.42	9.95	7.17	5.49	4.35	3.52	2.91	2.44	2.06	1.75	1.50	1.29
		L/200	11.57	7.46	5.38	4.11	3.26	2.65	2.19	1.83	1.54	1.31	1.13	0.97
III	ULS	6.06	4.04	3.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
	L/100	23.15	14.92	10.76	8.23	6.52	5.30	4.37	3.66	3.09	2.63	2.25	1.94	
	SLS L/150	15.42	9.95	7.17	5.49	4.35	3.52	2.91	2.44	2.06	1.75	1.50	1.29	
	L/200	11.57	7.46	5.38	4.11	3.26	2.65	2.19	1.83	1.54	1.31	1.13	0.97	
	ULS	6.06	4.04	3.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
	L/100	23.15	14.92	10.76	8.23	6.52	5.30	4.37	3.66	3.09	2.63	2.25	1.94	

● **Maximum allowable wind suction [kN/m<sup>2</sup>] for the length of span made of Ruukki SP2D120WE panels**

*Table 17*

External facing thickness: 0.50 mm  
 Internal facing thickness: 0.40 mm  
 External temperature: +55°C; +65°C; +80°C/-20°C (summer/winter)  
 Internal temperature: +20°C/+20°C (summer/winter)  
 Minimum end support width: 40 mm  
 Minimum intermediate support width: 60 mm  
 Minimum number of fasteners at the end support: 2 or 3  
 Minimum number of fasteners at the intermediate support: 3 or 4

ULS - Ultimate Limit State  
 ULS 2/0 - Ultimate Limit State; 2 fasteners at an end support  
 ULS 1/0 - Ultimate Limit State; 1 fastener at an end support  
 ULS 2/3 - Ultimate Limit State; 2 fasteners at an end support / 3 fasteners at an intermediate support  
 ULS 1/3 - Ultimate Limit State; 1 fastener at an end support j / 3 fasteners at an intermediate support  
 SLS - Serviceability Limit State

Static scheme	Colour group	Criterion	Span length [m]											
			1.00	1.50	2.00	2.50	3.00	3.50	4.00	4.50	5.00	5.50	6.00	6.50
Single-span system	I	ULS	11.64	7.64	5.68	4.52	3.76	3.21	2.69	2.12	1.72	1.42	1.19	1.01
		L/100	23.04	14.69	10.38	7.72	5.93	4.66	3.71	3.00	2.44	2.02	1.67	1.41
		SLS L/150	11.52	7.34	5.19	3.86	2.97	2.33	1.86	1.50	1.20	0.95	0.76	0.61
		L/200	11.52	7.34	5.19	3.86	2.97	2.33	1.86	1.50	1.20	0.95	0.76	0.61
		ULS	11.64	7.64	5.68	4.52	3.76	3.21	2.69	2.12	1.72	1.42	1.19	1.01
		L/100	23.04	14.69	10.38	7.72	5.93	4.66	3.71	3.00	2.44	2.02	1.67	1.40
	II	SLS L/150	15.36	9.79	6.92	5.15	3.96	3.10	2.48	2.00	1.62	1.29	1.04	0.84
		L/200	11.52	7.34	5.19	3.86	2.97	2.33	1.81	1.39	1.08	0.84	0.60	0.41
		ULS	11.64	7.64	5.68	4.52	3.76	3.21	2.69	2.12	1.72	1.42	1.19	1.01
		L/100	23.04	14.69	10.38	7.72	5.93	4.66	3.71	3.00	2.45	2.02	1.63	1.33
		SLS L/150	15.36	9.79	6.92	5.15	3.96	3.11	2.41	1.85	1.44	1.13	0.80	0.56
		L/200	11.52	7.34	5.19	3.86	2.89	2.12	1.58	1.08	0.67	0.39	0.18	0.04
Double-span system	I	ULS	7.79	4.88	3.50	2.71	2.18	1.85	1.34	0.78	0.47	0.29	0.18	0.12
		L/100	23.11	14.84	10.65	8.13	6.45	5.26	4.37	3.68	3.14	2.70	2.34	2.04
		SLS L/150	15.40	9.89	7.10	5.42	4.30	3.51	2.91	2.46	2.10	1.80	1.56	1.36
		L/200	11.55	7.42	5.32	4.07	3.23	2.63	2.18	1.84	1.57	1.35	1.17	1.02
		ULS	7.55	4.69	3.33	2.54	2.07	0.99	0.26	0.00	0.00	0.00	0.00	0.00
		L/100	23.11	14.84	10.65	8.13	6.45	5.26	4.37	3.68	3.14	2.70	2.34	2.04
	II	SLS L/150	15.40	9.89	7.10	5.42	4.30	3.51	2.91	2.46	2.10	1.80	1.56	1.36
		L/200	11.55	7.42	5.32	4.07	3.23	2.63	2.18	1.84	1.57	1.35	1.17	1.02
		ULS	7.20	4.38	3.03	2.33	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		L/100	23.11	14.84	10.65	8.13	6.45	5.26	4.37	3.68	3.14	2.70	2.34	2.04
		SLS L/150	15.40	9.89	7.10	5.42	4.30	3.51	2.91	2.46	2.10	1.80	1.56	1.36
		L/200	11.55	7.42	5.32	4.07	3.23	2.63	2.18	1.84	1.57	1.35	1.17	1.02
Multi-span system	I	ULS	7.93	5.12	3.79	2.98	2.49	2.06	1.32	0.91	0.65	0.49	0.38	0.31
		L/100	23.14	14.92	10.76	8.22	6.52	5.30	4.37	3.66	3.09	2.63	2.25	1.94
		SLS L/150	15.42	9.95	7.17	5.48	4.35	3.53	2.92	2.44	2.06	1.75	1.50	1.29
		L/200	11.57	7.46	5.37	4.11	3.26	2.65	2.19	1.83	1.54	1.32	1.13	0.97
		ULS	7.73	4.97	3.63	2.89	1.57	0.64	0.24	0.06	0.00	0.00	0.00	0.00
		L/100	23.14	14.92	10.76	8.22	6.52	5.30	4.37	3.66	3.09	2.63	2.25	1.94
	II	SLS L/150	15.42	9.95	7.17	5.48	4.35	3.53	2.92	2.44	2.06	1.75	1.50	1.29
		L/200	11.57	7.46	5.37	4.11	3.26	2.65	2.19	1.83	1.54	1.32	1.13	0.97
		ULS	7.42	4.69	3.46	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		L/100	23.14	14.92	10.76	8.22	6.52	5.30	4.37	3.66	3.09	2.63	2.25	1.94
		SLS L/150	15.42	9.95	7.17	5.48	4.35	3.53	2.92	2.44	2.06	1.75	1.50	1.29
		L/200	11.57	7.46	5.37	4.11	3.26	2.65	2.19	1.83	1.54	1.31	1.13	0.96

• **Maximum allowable wind pressure [kN/m<sup>2</sup>] for the length of span made of Ruukki SP2D140WE panels**

*Table 18*

External facing thickness: 0.50 mm  
 Internal facing thickness: 0.40 mm  
 External temperature: +55°C; +65°C; +80°C/-20°C (summer/winter)  
 Internal temperature: +20°C/+20°C (summer/winter)  
 Minimum end support width: 40 mm  
 Minimum intermediate support width: 60 mm  
 Minimum number of fasteners at the end support: 2 or 3  
 Minimum number of fasteners at the intermediate support: 3 or 4

ULS - Ultimate Limit State  
 ULS 2/0 - Ultimate Limit State; 2 fasteners at an end support  
 ULS 1/0 - Ultimate Limit State; 1 fastener at an end support  
 ULS 2/3 - Ultimate Limit State; 2 fasteners at an end support / 3 fasteners at an intermediate support  
 ULS 1/3 - Ultimate Limit State; 1 fastener at an end support / 3 fasteners at an intermediate support  
 SLS - Serviceability Limit State

Static scheme	Colour group	Criterion	Span length [m]											
			1.00	1.50	2.00	2.50	3.00	3.50	4.00	4.50	5.00	5.50	6.00	6.50
Single-span system	I	ULS	6.06	4.04	3.03	2.42	2.02	1.73	1.52	1.35	1.21	1.10	1.01	0.93
		L/100	27.01	17.27	12.26	9.17	7.08	5.58	4.47	3.63	2.98	2.46	2.06	1.72
		SLS L/150	18.01	11.52	8.17	6.12	4.72	3.72	2.98	2.42	1.99	1.64	1.37	1.15
		L/200	13.51	8.64	6.13	4.59	3.54	2.79	2.24	1.82	1.47	1.17	0.95	0.77
	II	ULS	6.06	4.04	3.03	2.42	2.02	1.73	1.52	1.35	1.21	1.10	1.01	0.93
		L/100	27.01	17.27	12.26	9.17	7.08	5.58	4.47	3.63	2.98	2.46	2.06	1.72
		SLS L/150	18.01	11.52	8.17	6.12	4.72	3.72	2.98	2.42	1.99	1.64	1.37	1.15
		L/200	13.51	8.64	6.13	4.59	3.54	2.79	2.24	1.82	1.47	1.17	0.95	0.77
	III	ULS	6.06	4.04	3.03	2.42	2.02	1.73	1.52	1.35	1.21	1.10	1.01	0.93
		L/100	27.01	17.27	12.26	9.17	7.08	5.58	4.47	3.63	2.98	2.46	2.06	1.72
		SLS L/150	18.01	11.52	8.17	6.12	4.72	3.72	2.98	2.42	1.99	1.64	1.37	1.15
		L/200	13.51	8.64	6.13	4.59	3.54	2.79	2.24	1.82	1.47	1.17	0.95	0.77
Double-span system	I	ULS	6.06	4.04	3.03	2.41	1.97	1.66	1.36	0.72	0.39	0.21	0.09	0.03
		L/100	27.10	17.52	12.65	9.70	7.72	6.29	5.21	4.37	3.70	3.17	2.72	2.35
		SLS L/150	18.04	11.62	8.37	6.40	5.09	4.16	3.46	2.93	2.50	2.16	1.87	1.64
		L/200	13.53	8.72	6.27	4.80	3.82	3.12	2.60	2.19	1.88	1.62	1.40	1.23
	II	ULS	6.06	4.04	3.03	2.41	1.97	1.66	1.35	0.73	0.00	0.00	0.00	0.00
		L/100	27.06	17.44	12.55	9.60	7.63	6.24	5.19	4.39	3.75	3.24	2.81	2.46
		SLS L/150	18.04	11.62	8.37	6.40	5.09	4.16	3.46	2.93	2.50	2.16	1.87	1.64
		L/200	13.53	8.72	6.27	4.80	3.82	3.12	2.60	2.19	1.88	1.62	1.40	1.23
	III	ULS	6.06	4.04	3.03	2.41	1.97	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		L/100	27.06	17.44	12.55	9.60	7.63	6.24	5.19	4.39	3.75	3.24	2.81	2.46
		SLS L/150	18.04	11.62	8.37	6.40	5.09	4.16	3.46	2.93	2.50	2.16	1.87	1.64
		L/200	13.53	8.72	6.27	4.80	3.82	3.12	2.60	2.19	1.88	1.62	1.40	1.23
Multi-span system	I	ULS	6.06	4.04	3.03	2.42	2.02	1.73	1.25	0.82	0.56	0.40	0.30	0.23
		L/100	27.10	17.52	12.65	9.70	7.72	6.29	5.21	4.37	3.70	3.17	2.72	2.35
		SLS L/150	18.08	11.68	8.44	6.47	5.14	4.19	3.47	2.92	2.47	2.11	1.81	1.57
		L/200	13.56	8.76	6.33	4.85	3.86	3.15	2.61	2.19	1.85	1.58	1.36	1.18
	II	ULS	6.06	4.04	3.03	2.42	2.02	1.73	1.25	0.82	0.56	0.00	0.00	0.00
		L/100	27.10	17.52	12.65	9.70	7.72	6.29	5.21	4.37	3.70	3.17	2.72	2.35
		SLS L/150	18.08	11.68	8.44	6.47	5.14	4.19	3.47	2.92	2.47	2.11	1.81	1.57
		L/200	13.56	8.76	6.33	4.85	3.86	3.15	2.61	2.19	1.85	1.58	1.36	1.18
	III	ULS	6.06	4.04	3.03	2.43	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		L/100	27.10	17.52	12.65	9.70	7.72	6.29	5.21	4.37	3.70	3.17	2.72	2.35
		SLS L/150	18.08	11.68	8.44	6.47	5.14	4.19	3.47	2.92	2.47	2.11	1.81	1.57
		L/200	13.56	8.76	6.33	4.85	3.86	3.15	2.61	2.19	1.85	1.58	1.36	1.18

• **Maximum allowable wind suction [kN/m<sup>2</sup>] for the length of span made of Ruukki SP2D140WE panels**

*Table 19*

External facing thickness: 0.50 mm  
 Internal facing thickness: 0.40 mm  
 External temperature: +55°C; +65°C; +80°C/-20°C (summer/winter)  
 Internal temperature: +20°C/+20°C (summer/winter)  
 Minimum end support width: 40 mm  
 Minimum intermediate support width: 60 mm  
 Minimum number of fasteners at the end support: 2 or 3  
 Minimum number of fasteners at the intermediate support: 3 or 4

ULS - Ultimate Limit State  
 ULS 2/0 - Ultimate Limit State; 2 fasteners at an end support  
 ULS 1/0 - Ultimate Limit State; 1 fastener at an end support  
 ULS 2/3 - Ultimate Limit State; 2 fasteners at an end support / 3 fasteners at an intermediate support  
 ULS 1/3 - Ultimate Limit State; 1 fastener at an end support j / 3 fasteners at an intermediate support  
 SLS - Serviceability Limit State

Static scheme	Colour group	Criterion	Span length [m]											
			1.00	1.50	2.00	2.50	3.00	3.50	4.00	4.50	5.00	5.50	6.00	6.50
Single-span system	I	ULS	13.61	8.93	6.64	5.29	4.39	3.76	2.89	2.29	1.85	1.53	1.29	1.10
		L/100	27.01	17.27	12.26	9.17	7.08	5.58	4.47	3.62	2.97	2.46	2.06	1.73
		SLS L/150	13.51	8.64	6.13	4.58	3.54	2.79	2.24	1.81	1.49	1.23	1.00	0.82
		L/200	13.51	8.64	6.13	4.58	3.54	2.79	2.24	1.81	1.49	1.23	1.00	0.82
	II	ULS	13.61	8.93	6.64	5.29	4.39	3.76	2.89	2.29	1.85	1.53	1.29	1.10
		L/100	27.01	17.27	12.26	9.17	7.08	5.58	4.47	3.62	2.97	2.46	2.06	1.74
		SLS L/150	18.01	11.51	8.17	6.11	4.72	3.72	2.98	2.42	1.98	1.65	1.35	1.11
		L/200	13.51	8.64	6.13	4.58	3.54	2.79	2.24	1.79	1.41	1.12	0.90	0.72
	III	ULS	13.61	8.93	6.64	5.29	4.39	3.76	2.89	2.29	1.85	1.53	1.29	1.10
		L/100	27.01	17.27	12.26	9.17	7.08	5.58	4.47	3.62	2.97	2.46	2.05	1.73
		SLS L/150	18.01	11.51	8.17	6.11	4.72	3.72	2.98	2.38	1.88	1.49	1.19	0.95
		L/200	13.51	8.64	6.13	4.58	3.54	2.71	2.06	1.57	1.18	0.80	0.52	0.31
Double-span system	I	ULS	7.79	4.89	3.50	2.70	2.17	1.84	1.60	0.96	0.59	0.37	0.23	0.15
		L/100	27.09	17.43	12.54	9.59	7.63	6.24	5.19	4.39	3.75	3.24	2.81	2.46
		SLS L/150	18.04	11.62	8.37	6.40	5.09	4.16	3.46	2.93	2.50	2.16	1.87	1.64
		L/200	13.53	8.72	6.27	4.80	3.82	3.12	2.60	2.20	1.87	1.62	1.41	1.23
	II	ULS	7.56	4.69	3.32	2.53	2.06	1.36	0.45	0.03	0.00	0.00	0.00	0.00
		L/100	27.09	17.43	12.54	9.59	7.63	6.24	5.19	4.39	3.75	3.24	2.81	2.46
		SLS L/150	18.04	11.62	8.37	6.40	5.09	4.16	3.46	2.93	2.50	2.16	1.87	1.64
		L/200	13.53	8.72	6.27	4.80	3.82	3.12	2.60	2.20	1.87	1.62	1.41	1.23
	III	ULS	7.20	4.38	3.06	2.31	0.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		L/100	27.09	17.43	12.54	9.59	7.63	6.24	5.19	4.39	3.75	3.24	2.81	2.46
		SLS L/150	18.04	11.62	8.37	6.40	5.09	4.16	3.46	2.93	2.50	2.16	1.87	1.64
		L/200	13.53	8.72	6.27	4.80	3.82	3.12	2.60	2.20	1.87	1.62	1.41	1.23
Multi-span system	I	ULS	7.93	5.11	3.77	2.97	2.47	2.12	1.53	1.04	0.75	0.56	0.44	0.34
		L/100	27.12	17.52	12.65	9.70	7.72	6.29	5.21	4.37	3.70	3.16	2.72	2.35
		SLS L/150	18.07	11.68	8.44	6.47	5.14	4.19	3.47	2.92	2.47	2.11	1.81	1.57
		L/200	13.56	8.76	6.33	4.85	3.86	3.14	2.60	2.19	1.85	1.58	1.36	1.18
	II	ULS	7.73	4.96	3.61	2.87	1.97	0.85	0.36	0.12	0.00	0.00	0.00	0.00
		L/100	27.12	17.52	12.65	9.70	7.72	6.29	5.21	4.37	3.70	3.16	2.72	2.35
		SLS L/150	18.07	11.68	8.44	6.47	5.14	4.19	3.47	2.92	2.47	2.11	1.81	1.57
		L/200	13.56	8.76	6.33	4.85	3.86	3.14	2.60	2.19	1.85	1.58	1.36	1.18
	III	ULS	7.41	4.72	3.43	0.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		L/100	27.12	17.52	12.65	9.70	7.72	6.29	5.21	4.37	3.70	3.16	2.72	2.35
		SLS L/150	18.07	11.68	8.44	6.47	5.14	4.19	3.47	2.92	2.47	2.11	1.81	1.57
		L/200	13.56	8.76	6.33	4.85	3.86	3.14	2.60	2.19	1.85	1.58	1.36	1.17

• **Maximum allowable wind pressure [kN/m<sup>2</sup>] for the length of span made of Ruukki SP2D160WE panels**

*Table 20*

External facing thickness: 0.50 mm  
 Internal facing thickness: 0.40 mm  
 External temperature: +55°C; +65°C; +80°C/-20°C (summer/winter)  
 Internal temperature: +20°C/+20°C (summer/winter)  
 Minimum end support width: 40 mm  
 Minimum intermediate support width: 60 mm  
 Minimum number of fasteners at the end support: 2 or 3  
 Minimum number of fasteners at the intermediate support: 3 or 4

ULS - Ultimate Limit State  
 ULS 2/0 - Ultimate Limit State; 2 fasteners at an end support  
 ULS 1/0 - Ultimate Limit State; 1 fastener at an end support  
 ULS 2/3 - Ultimate Limit State; 2 fasteners at an end support / 3 fasteners at an intermediate support  
 ULS 1/3 - Ultimate Limit State; 1 fastener at an end support j / 3 fasteners at an intermediate support  
 SLS - Serviceability Limit State

Static scheme	Colour group	Criterion	Span length [m]											
			1.00	1.50	2.00	2.50	3.00	3.50	4.00	4.50	5.00	5.50	6.00	6.50
Single-span system	I	ULS	6.06	4.04	3.03	2.41	1.96	1.65	1.43	1.27	0.94	0.61	0.40	0.27
		L/100	31.04	19.95	14.23	10.72	8.33	6.62	5.34	4.36	3.60	3.00	2.51	2.12
		SLS L/150	20.70	13.29	9.49	7.14	5.56	4.41	3.56	2.91	2.40	1.99	1.68	1.41
		L/200	15.51	9.97	7.12	5.36	4.17	3.31	2.67	2.18	1.80	1.49	1.22	1.00
	II	ULS	6.06	4.04	3.03	2.42	2.02	1.73	1.51	1.35	1.21	1.10	1.01	0.93
		L/100	31.04	19.95	14.23	10.72	8.33	6.62	5.34	4.36	3.60	3.00	2.51	2.12
		SLS L/150	20.70	13.29	9.49	7.14	5.56	4.41	3.56	2.91	2.40	1.99	1.68	1.41
		L/200	15.51	9.97	7.12	5.36	4.17	3.31	2.67	2.18	1.80	1.49	1.22	1.00
	III	ULS	6.06	4.04	3.03	2.42	2.02	1.73	1.51	1.35	1.21	1.10	1.01	0.93
		L/100	31.04	19.95	14.23	10.72	8.33	6.62	5.34	4.36	3.60	3.00	2.51	2.12
		SLS L/150	20.70	13.29	9.49	7.14	5.56	4.41	3.56	2.91	2.40	1.99	1.68	1.41
		L/200	15.51	9.97	7.12	5.36	4.17	3.31	2.67	2.18	1.80	1.49	1.22	1.00
Double-span system	I	ULS	6.06	4.04	3.03	2.41	1.96	1.65	1.43	1.27	0.94	0.61	0.40	0.27
		L/100	31.09	20.09	14.51	11.13	8.89	7.28	6.09	5.16	4.43	3.84	3.34	2.94
		SLS L/150	20.73	13.39	9.67	7.42	5.92	4.85	4.06	3.44	2.95	2.56	2.22	1.96
		L/200	15.55	10.04	7.26	5.57	4.44	3.64	3.04	2.58	2.22	1.91	1.67	1.47
	II	ULS	6.06	4.04	3.03	2.41	1.96	1.65	1.43	1.26	0.94	0.61	0.00	0.00
		L/100	31.09	20.09	14.51	11.13	8.89	7.28	6.09	5.16	4.43	3.84	3.34	2.94
		SLS L/150	20.73	13.39	9.67	7.42	5.92	4.85	4.06	3.44	2.95	2.56	2.22	1.96
		L/200	15.55	10.04	7.26	5.57	4.44	3.64	3.04	2.58	2.22	1.91	1.67	1.47
	III	ULS	6.06	4.04	3.03	2.41	1.96	1.65	0.00	0.00	0.00	0.00	0.00	0.00
		L/100	31.09	20.09	14.51	11.13	8.89	7.28	6.09	5.16	4.43	3.84	3.34	2.94
		SLS L/150	20.73	13.39	9.67	7.42	5.92	4.85	4.06	3.44	2.95	2.56	2.22	1.96
		L/200	15.55	10.04	7.26	5.57	4.44	3.64	3.04	2.58	2.22	1.91	1.67	1.47
Multi-span system	I	ULS	6.06	4.04	3.03	2.42	2.02	1.73	1.52	1.35	1.08	0.81	0.63	0.50
		L/100	31.13	20.16	14.61	11.25	8.99	7.35	6.12	5.16	4.39	3.77	3.26	2.83
		SLS L/150	20.75	13.45	9.75	7.50	5.99	4.90	4.08	3.44	2.93	2.51	2.17	1.89
		L/200	15.56	10.09	7.31	5.62	4.49	3.67	3.06	2.58	2.19	1.88	1.63	1.41
	II	ULS	6.06	4.04	3.03	2.42	2.02	1.73	1.52	1.35	1.09	0.81	0.63	0.50
		L/100	31.13	20.16	14.61	11.25	8.99	7.35	6.12	5.16	4.39	3.77	3.26	2.83
		SLS L/150	20.75	13.45	9.75	7.50	5.99	4.90	4.08	3.44	2.93	2.51	2.17	1.89
		L/200	15.56	10.09	7.31	5.62	4.49	3.67	3.06	2.58	2.19	1.88	1.63	1.41
	III	ULS	6.06	4.04	3.03	2.42	2.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		L/100	31.13	20.16	14.61	11.25	8.99	7.35	6.12	5.16	4.39	3.77	3.26	2.83
		SLS L/150	20.75	13.45	9.75	7.50	5.99	4.90	4.08	3.44	2.93	2.51	2.17	1.89
		L/200	15.56	10.09	7.31	5.62	4.49	3.67	3.06	2.58	2.19	1.88	1.63	1.41

● **Maximum allowable wind suction [kN/m<sup>2</sup>] for the length of span made of Ruukki SP2D160WE panels**

*Table 21*

External facing thickness: 0.50 mm  
 Internal facing thickness: 0.40 mm  
 External temperature: +55°C; +65°C; +80°C/-20°C (summer/winter)  
 Internal temperature: +20°C/+20°C (summer/winter)  
 Minimum end support width: 40 mm  
 Minimum intermediate support width: 60 mm  
 Minimum number of fasteners at the end support: 2 or 3  
 Minimum number of fasteners at the intermediate support: 3 or 4

ULS - Ultimate Limit State  
 ULS 2/0 - Ultimate Limit State; 2 fasteners at an end support  
 ULS 1/0 - Ultimate Limit State; 1 fastener at an end support  
 ULS 2/3 - Ultimate Limit State; 2 fasteners at an end support / 3 fasteners at an intermediate support  
 ULS 1/3 - Ultimate Limit State; 1 fastener at an end support j / 3 fasteners at an intermediate support  
 SLS - Serviceability Limit State

Static scheme	Colour group	Criterion	Span length [m]											
			1.00	1.50	2.00	2.50	3.00	3.50	4.00	4.50	5.00	5.50	6.00	6.50
Single-span system	I	ULS	15.19	9.98	7.44	5.93	4.93	4.21	3.59	2.84	2.29	1.89	1.59	1.36
		L/100	31.04	19.95	14.23	10.71	8.33	6.62	5.34	4.36	3.60	3.00	2.51	2.13
		SLS L/150	20.70	13.30	9.48	7.14	5.56	4.41	3.56	2.91	2.40	2.00	1.68	1.42
		L/200	15.51	9.97	7.12	5.36	4.17	3.31	2.67	2.18	1.80	1.50	1.26	1.05
	II	ULS	15.19	9.98	7.44	5.93	4.93	4.21	3.59	2.84	2.29	1.89	1.59	1.36
		L/100	31.04	19.95	14.23	10.71	8.33	6.62	5.34	4.36	3.60	3.00	2.51	2.13
		SLS L/150	20.70	13.30	9.48	7.14	5.56	4.41	3.56	2.91	2.40	1.99	1.68	1.42
		L/200	15.51	9.97	7.12	5.36	4.17	3.31	2.67	2.18	1.79	1.45	1.17	0.96
	III	ULS	15.19	9.98	7.44	5.93	4.93	4.21	3.59	2.84	2.29	1.89	1.59	1.36
		L/100	31.04	19.95	14.23	10.71	8.33	6.62	5.34	4.36	3.60	3.00	2.52	2.13
		SLS L/150	20.70	13.30	9.48	7.14	5.56	4.41	3.56	2.91	2.39	1.93	1.56	1.27
		L/200	15.51	9.97	7.12	5.36	4.17	3.31	2.60	2.02	1.59	1.26	0.91	0.64
Double-span system	I	ULS	7.80	4.90	3.50	2.70	2.19	1.82	1.58	1.40	1.09	0.74	0.52	0.38
		L/100	31.09	20.09	14.51	11.13	8.89	7.28	6.08	5.16	4.43	3.83	3.34	2.94
		SLS L/150	20.73	13.38	9.67	7.42	5.92	4.85	4.06	3.44	2.95	2.56	2.23	1.96
		L/200	15.54	10.04	7.25	5.57	4.44	3.64	3.04	2.58	2.21	1.92	1.67	1.47
	II	ULS	7.56	4.69	3.31	2.54	2.03	1.71	1.35	0.62	0.24	0.04	0.00	0.00
		L/100	31.09	20.09	14.51	11.13	8.89	7.28	6.08	5.16	4.43	3.83	3.34	2.94
		SLS L/150	20.73	13.38	9.67	7.42	5.92	4.85	4.06	3.44	2.95	2.56	2.23	1.96
		L/200	15.54	10.04	7.25	5.57	4.44	3.64	3.04	2.58	2.21	1.92	1.67	1.47
	III	ULS	7.20	4.37	3.04	2.28	1.85	0.20	0.00	0.00	0.00	0.00	0.00	0.00
		L/100	31.09	20.09	14.51	11.13	8.89	7.28	6.08	5.16	4.43	3.83	3.34	2.94
		SLS L/150	20.73	13.38	9.67	7.42	5.92	4.85	4.06	3.44	2.95	2.56	2.23	1.96
		L/200	15.54	10.04	7.25	5.57	4.44	3.64	3.04	2.58	2.21	1.92	1.67	1.47
Multi-span system	I	ULS	7.92	5.10	3.76	2.98	2.46	2.11	1.85	1.65	1.23	0.93	0.73	0.59
		L/100	31.12	20.16	14.62	11.25	8.99	7.35	6.12	5.16	4.40	3.77	3.26	2.83
		SLS L/150	20.75	13.44	9.75	7.50	5.99	4.90	4.08	3.44	2.93	2.51	2.18	1.89
		L/200	15.56	10.09	7.31	5.63	4.49	3.68	3.06	2.58	2.20	1.88	1.63	1.42
	II	ULS	7.71	4.94	3.63	2.85	2.38	1.94	1.07	0.63	0.38	0.23	0.15	0.09
		L/100	31.12	20.16	14.62	11.25	8.99	7.35	6.12	5.16	4.40	3.77	3.26	2.83
		SLS L/150	20.75	13.44	9.75	7.50	5.99	4.90	4.08	3.44	2.93	2.51	2.18	1.89
		L/200	15.56	10.09	7.31	5.63	4.49	3.68	3.06	2.58	2.20	1.88	1.63	1.42
	III	ULS	7.40	4.69	3.39	2.70	0.18	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		L/100	31.12	20.16	14.62	11.25	8.99	7.35	6.12	5.16	4.40	3.77	3.26	2.83
		SLS L/150	20.75	13.44	9.75	7.50	5.99	4.90	4.08	3.44	2.93	2.51	2.18	1.89
		L/200	15.56	10.09	7.31	5.63	4.49	3.68	3.06	2.58	2.20	1.89	1.63	1.42







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