Sandwich panels

Span tables for sandwich panels

Ruukki SPB S, Ruukki SPC S

Ruukki sandwich panels with polystyrene core are universal products meeting customer requirements as to economic envelopes providing required thermal insulation. A wide gamut of facings colours and profiling, as well as possibility of combining with door and window joinery, enable to realize interesting building and architectural projects connected with light housing of external and internal walls and roofs of construction works of various size and destination.

Product application

- production halls
- storehouse halls
- sport halls
- trade buildings
- exhibition objects
- office buildings
- administration buildings

Ruukki is a metal expert you can rely on all the way, whenever you need metal based materials, components, systems or total solutions. We constantly develop our product range and operating models to match your needs.

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Maximum allowed span for uniform (wind) characteristic load [kN/m²] Ruukki SPB80S

Table 1

External facing thickness: 0.50 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)
Min. end support width: 40 mm
Min. intermediate support width: 60 mm
Min. number of fasteners at end support: 2 or 3
Min. number of fasteners at intermediate support: 3 or 4

ULS – Ultimate Limit State, to find span length put characteristic load (during span length calculation characteristic load is automatically corrected by safety factor)
ULS 3/0 – Ultimate Limit State; 3 fasteners at the end support
ULS 2/0 – Ultimate Limit State; 2 fasteners at the end support
ULS 2/4 – Ultimate Limit State; 2 fasteners at the end support / 4 fasteners at intermediate support
ULS 2/3 – Ultimate Limit State; 2 fasteners at the end support / 3 fasteners at intermediate support
SLS – Serviceability Limit State, to find span length put characteristic load

Static scheme	*Colour group*	*Criterion*	*Characteristic load [kN/m²]*													
			-1.2	*-1.0*	*-0.8*	*-0.6*	*-0.5*	*-0.4*	*-0.3*	*0.3*	*0.4*	*0.5*	*0.6*	*0.8*	*1.0*	*1.2*
Single span		**ULS 3/0**	3.05	3.34	3.74	4.32	4.73	5.28	6.10	6.23	5.39	4.82	4.40	3.81	3.08	2.56
		ULS 2/0	3.05	3.34	3.74	4.32	4.73	5.28	6.10	6.23	5.39	4.83	4.41	3.81	3.08	2.56
	I	**L/100**	4.95	5.36	5.89	6.63	7.12	7.72	8.49	8.31	7.56	7.02	6.59	5.89	5.37	4.95
		SLS L/150	4.10	4.47	4.95	5.51	5.88	6.36	6.99	6.65	6.19	5.74	5.38	4.84	4.44	4.11
		L/200	3.56	3.87	4.24	4.73	5.06	5.47	5.88	5.45	5.12	4.86	4.60	4.13	3.77	3.49
		ULS 3/0	3.06	3.34	3.74	4.32	4.73	5.28	6.10	6.21	5.37	4.81	4.39	3.79	3.08	2.57
		ULS 2/0	3.05	3.34	3.74	4.31	4.73	5.29	6.10	6.21	5.38	4.80	4.39	3.80	3.07	2.56
	II	**L/100**	4.95	5.36	5.89	6.59	7.01	7.56	8.30	8.31	7.56	7.02	6.59	5.89	5.37	4.95
		SLS L/150	4.11	4.44	4.84	5.38	5.73	6.18	6.66	6.65	6.18	5.74	5.38	4.84	4.44	4.10
		L/200	3.49	3.77	4.13	4.60	4.85	5.12	5.45	5.45	5.12	4.86	4.60	4.13	3.77	3.49
Two span		**ULS 2/4**	2.77	2.87	2.99	3.16	3.26	3.39	3.55	3.37	3.24	3.15	3.06	2.89	2.31	1.92
		ULS 2/3	2.26	2.64	2.99	3.16	3.26	3.39	3.55	3.37	3.24	3.15	3.06	2.89	2.31	1.92
	I	**L/100**	6.09	6.67	7.42	8.45	9.13	10.02	11.25	11.25	10.02	9.13	8.44	7.42	6.67	6.08
		SLS L/150	4.88	5.41	6.08	7.02	7.65	8.44	9.55	9.55	8.44	7.65	7.02	6.09	5.41	4.89
		L/200	4.11	4.60	5.22	6.09	6.67	7.42	8.45	8.45	7.42	6.67	6.09	5.21	4.59	4.12
		ULS 2/4	2.50	2.57	2.66	2.76	2.81	2.89	2.97	3.36	3.25	3.14	3.05	2.89	2.31	1.92
		ULS 2/3	2.05	2.41	2.65	2.75	2.81	2.88	2.97	3.37	3.25	3.14	3.06	2.88	2.31	1.92
	II	**L/100**	6.08	6.67	7.42	8.45	9.13	10.02	11.25	11.25	10.02	9.13	8.44	7.42	6.67	6.08
		SLS L/150	4.89	5.41	6.08	7.02	7.65	8.44	9.55	9.54	8.45	7.65	7.02	6.09	5.41	4.89
		L/200	4.12	4.59	5.22	6.09	6.67	7.42	8.44	8.44	7.42	6.67	6.08	5.21	4.60	4.12
Multi span		**ULS 2/4**	2.67	2.81	2.98	3.23	3.40	3.62	3.93	3.63	3.39	3.21	3.08	2.87	2.31	1.92
		ULS 2/3	2.41	2.80	2.98	3.23	3.40	3.62	3.93	3.63	3.39	3.21	3.08	2.87	2.31	1.92
	I	**L/100**	5.84	6.37	7.05	7.98	8.61	9.43	10.56	10.56	9.43	8.61	7.98	7.05	6.37	5.84
		SLS L/150	4.75	5.23	5.83	6.69	7.25	7.98	8.99	8.99	7.98	7.25	6.68	5.84	5.23	4.75
		L/200	4.05	4.49	5.06	5.84	6.36	7.04	7.98	7.91	7.05	6.36	5.84	5.05	4.49	4.05
		ULS 2/4	2.30	2.39	2.49	2.62	2.70	2.80	2.93	3.63	3.39	3.21	3.08	2.87	2.31	1.92
		ULS 2/3	2.30	2.39	2.48	2.61	2.70	2.80	2.93	3.63	3.39	3.22	3.08	2.87	2.31	1.92
	II	**L/100**	5.84	6.36	7.04	7.98	8.61	9.43	10.56	10.56	9.43	8.61	7.98	7.05	6.37	5.84
		SLS L/150	4.75	5.23	5.84	6.68	7.25	7.98	8.99	8.99	7.98	7.25	6.68	5.84	5.23	4.75
		L/200	4.05	4.49	5.05	5.83	6.36	7.05	7.91	7.91	7.05	6.36	5.84	5.05	4.49	4.05

Maximum allowed span for uniform (wind) characteristic load [kN/m²] Ruukki SPB100S

Table 2

External facing thickness: 0.50 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)
Min. end support width: 40 mm
Min. intermediate support width: 60 mm
Min. number of fasteners at end support: 2 or 3
Min. number of fasteners at intermediate support: 3 or 4

ULS – Ultimate Limit State, to find span length put characteristic load (during span length calculation characteristic load is automatically corrected by safety factor)
ULS 3/0 – Ultimate Limit State; 3 fasteners at the end support
ULS 2/0 – Ultimate Limit State; 2 fasteners at the end support
ULS 2/4 – Ultimate Limit State; 2 fasteners at the end support / 4 fasteners at intermediate support
ULS 2/3 – Ultimate Limit State; 2 fasteners at the end support / 3 fasteners at intermediate support
SLS – Serviceability Limit State, to find span length put characteristic load

Static scheme	*Colour group*	*Criterion*	*Characteristic load [kN/m²]*													
			-1.2	*-1.0*	*-0.8*	*-0.6*	*-0.5*	*-0.4*	*-0.3*	*0.3*	*0.4*	*0.5*	*0.6*	*0.8*	*1.0*	*1.2*
Single span	**I**	**ULS 3/0**	3.49	3.82	4.27	4.93	5.40	6.03	6.97	7.06	6.11	5.47	4.99	3.85	3.08	2.57
		ULS 2/0	3.49	3.82	4.27	4.93	5.40	6.03	6.97	7.06	6.11	5.47	4.99	3.85	3.08	2.57
		L/100	5.83	6.30	6.91	7.75	8.33	9.07	10.01	9.81	8.93	8.29	7.76	6.92	6.30	5.83
		SLS L/150	4.85	5.28	5.82	6.53	6.97	7.53	8.28	8.02	7.34	6.81	6.39	5.75	5.28	4.85
		L/200	4.22	4.62	5.05	5.64	6.02	6.51	7.09	6.62	6.20	5.85	5.49	4.93	4.51	4.18
	II	**ULS 3/0**	3.48	3.81	4.27	4.93	5.40	6.03	6.97	7.03	6.08	5.45	4.97	3.85	3.08	2.57
		ULS 2/0	3.49	3.82	4.27	4.93	5.40	6.03	6.97	7.03	6.08	5.45	4.97	3.85	3.08	2.56
		L/100	5.83	6.30	6.91	7.75	8.28	8.92	9.80	9.81	8.93	8.29	7.76	6.92	6.30	5.83
		SLS L/150	4.85	5.28	5.75	6.39	6.81	7.34	8.02	8.02	7.34	6.81	6.39	5.75	5.28	4.85
		L/200	4.18	4.51	4.93	5.49	5.85	6.21	6.62	6.62	6.20	5.85	5.49	4.93	4.51	4.18
Two span	**I**	**ULS 2/4**	2.85	3.32	3.47	3.67	3.81	3.97	4.18	4.24	4.03	3.87	3.75	2.89	2.31	1.92
		ULS 2/3	2.11	2.46	3.03	3.67	3.81	3.97	4.18	4.24	4.03	3.87	3.75	2.89	2.31	1.92
		L/100	7.21	7.89	8.75	9.93	10.72	11.75	13.17	13.17	11.75	10.72	9.93	8.75	7.89	7.22
		SLS L/150	5.82	6.43	7.22	8.29	9.01	9.93	11.20	11.20	9.93	9.01	8.29	7.22	6.43	5.83
		L/200	4.94	5.49	6.21	7.22	7.89	8.75	9.93	9.93	8.75	7.89	7.22	6.21	5.49	4.94
	II	**ULS 2/4**	2.77	2.96	3.06	3.19	3.27	3.35	3.46	4.01	4.01	3.88	3.75	2.89	2.31	1.92
		ULS 2/3	2.04	2.37	2.91	3.19	3.27	3.35	3.46	4.01	4.01	3.88	3.75	2.89	2.31	1.92
		L/100	7.21	7.89	8.75	9.93	10.72	11.75	13.17	13.17	11.75	10.72	9.93	8.75	7.89	7.21
		SLS L/150	5.82	6.44	7.21	8.29	9.01	9.93	11.20	11.20	9.93	9.01	8.29	7.21	6.44	5.82
		L/200	4.94	5.50	6.21	7.22	7.89	8.75	9.93	9.93	8.75	7.89	7.22	6.21	5.49	4.94
Multi span	**I**	**ULS 2/4**	3.12	3.29	3.51	3.82	4.04	4.33	4.74	4.89	4.46	4.17	3.85	2.88	2.31	1.92
		ULS 2/3	2.37	2.86	3.51	3.82	4.04	4.33	4.74	4.88	4.46	4.17	3.85	2.89	2.31	1.92
		L/100	6.90	7.51	8.29	9.37	10.09	11.04	12.35	12.35	11.04	10.10	9.37	8.29	7.51	6.90
		SLS L/150	5.65	6.20	6.90	7.87	8.53	9.37	10.54	10.54	9.37	8.53	7.87	6.90	6.20	5.65
		L/200	4.84	5.35	6.00	6.90	7.51	8.29	9.37	9.36	8.29	7.51	6.90	6.00	5.35	4.84
	II	**ULS 2/4**	2.68	2.78	2.92	3.09	3.20	3.34	3.51	4.88	4.46	4.17	3.85	2.88	2.31	1.93
		ULS 2/3	2.32	2.78	2.92	3.09	3.20	3.34	3.51	4.88	4.47	4.17	3.85	2.89	2.31	1.92
		L/100	6.90	7.51	8.29	9.37	10.09	11.04	12.35	12.35	11.04	10.10	9.37	8.29	7.51	6.90
		SLS L/150	5.65	6.20	6.90	7.87	8.53	9.37	10.54	10.54	9.37	8.53	7.87	6.90	6.20	5.65
		L/200	4.84	5.35	6.00	6.90	7.51	8.29	9.37	9.37	8.29	7.51	6.90	6.00	5.35	4.84

Maximum allowed span for uniform (wind) characteristic load [kN/m²] Ruukki SPB140S

Table 3

External facing thickness: 0.50 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)
Min. end support width: 40 mm
Min. intermediate support width: 60 mm
Min. number of fasteners at end support: 2 or 3
Min. number of fasteners at intermediate support: 3 or 4

ULS – Ultimate Limit State, to find span length put characteristic load (during span length calculation characteristic load is automatically corrected by safety factor)
ULS 3/0 – Ultimate Limit State; 3 fasteners at the end support
ULS 2/0 – Ultimate Limit State; 2 fasteners at the end support
ULS 2/4 – Ultimate Limit State; 2 fasteners at the end support / 4 fasteners at intermediate support
ULS 2/3 – Ultimate Limit State; 2 fasteners at the end support / 3 fasteners at intermediate support
SLS – Serviceability Limit State, to find span length put characteristic load

Static scheme	*Colour group*	*Criterion*	*Characteristic load [kN/m²]*													
			-1.2	*-1.0*	*-0.8*	*-0.6*	*-0.5*	*-0.4*	*-0.3*	*0.3*	*0.4*	*0.5*	*0.6*	*0.8*	*1.0*	*1.2*
Single span	**I**	**ULS 3/0**	4.13	4.52	5.06	5.84	6.40	7.15	8.26	8.37	7.25	6.16	5.13	3.85	3.08	2.56
		ULS 2/0	4.13	4.52	5.06	5.84	6.40	7.15	8.26	8.37	7.25	6.16	5.13	3.85	3.08	2.57
		L/100	7.43	8.02	8.78	9.83	10.54	11.47	12.76	12.56	11.43	10.54	9.83	8.78	8.02	7.43
		SLS L/150	6.22	6.75	7.43	8.37	8.97	9.68	10.65	10.39	9.47	8.78	8.24	7.43	6.75	6.22
		L/200	5.43	5.92	6.55	7.30	7.79	8.42	9.26	8.81	8.19	7.60	7.12	6.41	5.88	5.43
	II	**ULS 3/0**	4.13	4.52	5.06	5.84	6.40	7.15	8.26	8.33	7.21	6.16	5.13	3.85	3.08	2.56
		ULS 2/0	4.13	4.52	5.06	5.84	6.40	7.15	8.26	8.33	7.21	6.15	5.13	3.85	3.08	2.56
		L/100	7.43	8.02	8.78	9.83	10.55	11.43	12.56	12.55	11.43	10.54	9.83	8.78	8.02	7.43
		SLS L/150	6.22	6.75	7.43	8.24	8.78	9.47	10.39	10.39	9.47	8.78	8.24	7.43	6.75	6.22
		L/200	5.43	5.87	6.41	7.13	7.60	8.19	8.81	8.81	8.19	7.60	7.12	6.41	5.88	5.43
Two span	**I**	**ULS 2/4**	2.81	3.33	4.10	4.36	4.51	4.71	4.96	4.83	4.62	4.46	3.85	2.88	2.31	1.92
		ULS 2/3	2.08	2.44	2.94	3.85	4.51	4.70	4.95	4.84	4.62	4.45	3.85	2.89	2.31	1.92
		L/100	9.29	10.13	11.18	12.65	13.63	14.91	16.68	16.68	14.91	13.63	12.64	11.19	10.13	9.30
		SLS L/150	7.58	8.33	9.30	10.62	11.50	12.64	14.22	14.23	12.65	11.50	10.62	9.30	8.33	7.58
		L/200	6.47	7.16	8.06	9.30	10.13	11.18	12.64	12.65	11.19	10.13	9.29	8.06	7.16	6.47
	II	**ULS 2/4**	2.73	3.21	3.63	3.78	3.87	3.98	4.10	4.75	4.62	4.45	3.85	2.89	2.31	1.92
		ULS 2/3	2.01	2.34	2.81	3.68	3.87	3.98	4.10	4.75	4.62	4.45	3.85	2.89	2.31	1.92
		L/100	9.29	10.13	11.18	12.65	13.63	14.91	16.68	16.68	14.90	13.63	12.64	11.19	10.13	9.30
		SLS L/150	7.58	8.33	9.30	10.62	11.50	12.64	14.22	14.23	12.65	11.50	10.62	9.30	8.33	7.58
		L/200	6.47	7.16	8.06	9.30	10.13	11.18	12.64	12.65	11.19	10.13	9.29	8.06	7.16	6.47
Multi span	**I**	**ULS 2/4**	3.21	3.87	4.16	4.53	4.78	5.13	5.62	5.46	5.02	4.62	3.85	2.89	2.31	1.92
		ULS 2/3	2.34	2.78	3.50	4.53	4.79	5.12	5.61	5.46	5.02	4.62	3.85	2.88	2.31	1.93
		L/100	8.85	9.60	10.57	11.91	12.82	13.99	15.62	15.62	13.99	12.82	11.91	10.58	9.60	8.85
		SLS L/150	7.30	7.98	8.85	10.05	10.86	11.91	13.36	13.36	11.91	10.86	10.05	8.85	7.98	7.30
		L/200	6.30	6.92	7.73	8.85	9.60	10.57	11.91	11.91	10.57	9.60	8.85	7.74	6.93	6.30
	II	**ULS 2/4**	3.15	3.30	3.46	3.66	3.79	3.95	4.16	5.46	5.02	4.62	3.85	2.89	2.31	1.92
		ULS 2/3	2.26	2.71	3.42	3.66	3.79	3.95	4.16	5.46	5.02	4.62	3.85	2.89	2.31	1.92
		L/100	8.85	9.60	10.57	11.91	12.82	13.99	15.62	15.62	13.99	12.82	11.91	10.58	9.61	8.85
		SLS L/150	7.30	7.98	8.85	10.05	10.86	11.91	13.36	13.36	11.91	10.86	10.05	8.85	7.98	7.30
		L/200	6.30	6.93	7.73	8.85	9.60	10.57	11.91	11.91	10.57	9.60	8.85	7.74	6.93	6.30

Maximum allowed span for uniform (wind) characteristic load [kN/m²] Ruukki SPB200S

Table 4

External facing thickness: 0.50 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)
Min. end support width: 40 mm
Min. intermediate support width: 60 mm
Min. number of fasteners at end support: 2 or 3
Min. number of fasteners at intermediate support: 3 or 4

ULS – Ultimate Limit State, to find span length put characteristic load (during span length calculation characteristic load is automatically corrected by safety factor)
ULS 3/0 – Ultimate Limit State; 3 fasteners at the end support
ULS 2/0 – Ultimate Limit State; 2 fasteners at the end support
ULS 2/4 – Ultimate Limit State; 2 fasteners at the end support / 4 fasteners at intermediate support
ULS 2/3 – Ultimate Limit State; 2 fasteners at the end support / 3 fasteners at intermediate support
SLS – Serviceability Limit State, to find span length put characteristic load

Static scheme	*Colour group*	*Criterion*	*Characteristic load [kN/m²]*													
			-1.2	*-1.0*	*-0.8*	*-0.6*	*-0.5*	*-0.4*	*-0.3*	*0.3*	*0.4*	*0.5*	*0.6*	*0.8*	*1.0*	*1.2*
Single span	**I**	**ULS 3/0**	4.94	5.41	6.05	6.99	7.66	8.56	9.88	10.01	7.69	6.16	5.13	3.85	3.08	2.56
		ULS 2/0	4.94	5.42	6.05	6.99	7.66	8.56	9.89	10.01	7.69	6.16	5.13	3.85	3.08	2.56
		L/100	9.58	10.32	11.28	12.61	13.50	14.67	16.31	16.26	14.68	13.51	12.60	11.28	10.32	9.58
		SLS L/150	8.07	8.73	9.59	10.77	11.57	12.58	13.84	13.55	12.34	11.45	10.75	9.58	8.73	8.07
		L/200	7.09	7.70	8.49	9.55	10.19	11.00	12.10	11.79	10.74	9.97	9.35	8.42	7.70	7.08
	II	**ULS 3/0**	4.94	5.41	6.05	6.99	7.66	8.56	9.89	9.97	7.69	6.16	5.13	3.85	3.08	2.57
		ULS 2/0	4.94	5.42	6.05	6.99	7.66	8.56	9.89	9.97	7.69	6.16	5.13	3.85	3.08	2.57
		L/100	9.58	10.32	11.28	12.61	13.50	14.67	16.27	16.26	14.68	13.51	12.61	11.28	10.32	9.58
		SLS L/150	8.07	8.73	9.59	10.75	11.45	12.34	13.55	13.55	12.34	11.45	10.75	9.59	8.73	8.07
		L/200	7.09	7.70	8.42	9.35	9.96	10.75	11.79	11.79	10.74	9.97	9.35	8.42	7.70	7.08
Two span	**I**	**ULS 2/4**	2.80	3.29	3.98	5.21	5.40	5.63	5.93	5.55	5.33	4.62	3.85	2.88	2.31	1.92
		ULS 2/3	2.06	2.40	2.88	3.68	4.37	5.50	5.93	5.55	5.33	4.62	3.85	2.89	2.31	1.92
		L/100	12.11	13.13	14.46	16.30	17.54	19.14	21.37	21.38	19.14	17.54	16.29	14.46	13.13	12.10
		SLS L/150	9.95	10.89	12.11	13.75	14.86	16.30	18.28	18.28	16.29	14.86	13.75	12.11	10.90	9.95
		L/200	8.55	9.43	10.55	12.11	13.14	14.46	16.30	16.30	14.46	13.13	12.11	10.55	9.43	8.56
	II	**ULS 2/4**	2.70	3.13	3.83	4.52	4.63	4.76	4.91	5.55	5.32	4.62	3.85	2.89	2.31	1.92
		ULS 2/3	1.98	2.28	2.74	3.47	4.12	4.76	4.91	5.55	5.33	4.62	3.85	2.89	2.31	1.92
		L/100	12.11	13.13	14.46	16.29	17.53	19.14	21.38	21.38	19.14	17.54	16.30	14.46	13.13	12.11
		SLS L/150	9.95	10.89	12.10	13.75	14.86	16.29	18.28	18.28	16.29	14.86	13.75	12.11	10.89	9.95
		L/200	8.55	9.43	10.55	12.11	13.13	14.46	16.30	16.30	14.46	13.14	12.11	10.55	9.43	8.55
Multi span	**I**	**ULS 2/4**	3.13	3.77	4.75	5.42	5.73	6.14	6.72	6.11	5.67	4.62	3.85	2.89	2.31	1.92
		ULS 2/3	2.28	2.72	3.38	4.58	5.57	6.14	6.72	6.11	5.67	4.62	3.85	2.89	2.31	1.92
		L/100	11.48	12.42	13.64	15.32	16.46	17.94	19.99	19.99	17.94	16.46	15.32	13.64	12.42	11.48
		SLS L/150	9.54	10.39	11.48	12.99	14.01	15.32	17.15	17.15	15.32	14.01	12.99	11.48	10.38	9.54
		L/200	8.27	9.07	10.08	11.48	12.42	13.64	15.32	15.32	13.64	12.42	11.48	10.08	9.06	8.28
	II	**ULS 2/4**	3.07	3.69	4.14	4.38	4.54	4.73	4.98	6.11	5.67	4.62	3.85	2.88	2.31	1.92
		ULS 2/3	2.20	2.60	3.27	4.38	4.54	4.73	4.98	6.11	5.67	4.62	3.85	2.88	2.31	1.92
		L/100	11.48	12.42	13.64	15.32	16.46	17.94	19.99	19.99	17.94	16.46	15.32	13.63	12.42	11.48
		SLS L/150	9.54	10.38	11.48	12.99	14.01	15.32	17.15	17.15	15.32	14.00	12.99	11.48	10.39	9.54
		L/200	8.28	9.07	10.08	11.48	12.42	13.64	15.32	15.32	13.64	12.42	11.48	10.08	9.07	8.27

Maximum allowed span for uniform (wind) characteristic load [kN/m²] Ruukki SPC140/100S

Table 5

External facing thickness: 0.50 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)
Min. end support width: 40 mm
Min. intermediate support width: 60 mm
Min. number of fasteners at end support: 1 or 2
Min. number of fasteners at intermediate support: 2 or 3

ULS – Ultimate Limit State, to find span length put characteristic load (during span length calculation characteristic load is automatically corrected by safety factor)
ULS 2/0 – Ultimate Limit State; 2 fasteners at the end support
ULS 1/0 – Ultimate Limit State; 1 fasteners at the end support
ULS 2/3 – Ultimate Limit State; 2 fasteners at the end support / 3 fasteners at intermediate support
ULS 1/3 – Ultimate Limit State; 1 fasteners at the end support / 3 fasteners at intermediate support
SLS – Serviceability Limit State, to find span length put characteristic load

Static scheme	*Colour group*	*Criterion*	*Characteristic load [kN/m²]*													
			-1.2	*-1.0*	*-0.8*	*-0.6*	*-0.4*	*0.6*	*0.8*	*1.0*	*1.3*	*1.6*	*2.0*	*2.2*	*2.6*	*3.4*
Single span	**I**	**ULS 2/0**	3.87	4.25	4.78	5.59	7.06	4.94	4.00	3.30	2.56	2.06	1.65	1.51	1.31	1.06
		ULS 1/0	2.00	2.43	3.10	4.25	6.84	4.94	4.00	3.30	2.56	2.06	1.65	1.51	1.31	1.06
		L/100	5.76	6.38	7.22	8.46	10.58	7.14	6.32	5.71	5.02	4.50	3.98	3.77	3.42	2.92
		SLS L/150	4.61	5.16	5.91	7.01	8.91	5.83	5.10	4.57	3.97	3.54	3.11	2.94	2.67	2.29
		L/200	3.90	4.39	5.07	6.08	7.72	4.99	4.34	3.86	3.34	2.97	2.61	2.47	2.25	1.94
	II	**ULS 2/0**	3.87	4.25	4.78	5.59	7.05	4.94	4.00	3.30	2.56	2.06	1.65	1.51	1.31	1.06
		ULS 1/0	2.00	2.43	3.10	4.25	6.84	4.93	4.00	3.30	2.56	2.06	1.65	1.51	1.31	1.06
		L/100	5.76	6.39	7.22	8.46	10.58	7.14	6.32	5.70	5.01	4.50	3.98	3.77	3.42	2.92
		SLS L/150	4.61	5.17	5.91	7.02	8.91	5.83	5.10	4.57	3.98	3.54	3.12	2.94	2.67	2.29
		L/200	3.90	4.40	5.07	6.08	7.72	4.99	4.34	3.86	3.34	2.97	2.61	2.47	2.25	1.94
Two span	**I**	**ULS 2/3**	2.63	3.03	3.62	4.61	5.84	4.40	3.43	2.80	2.20	1.81	1.46	1.35	1.14	0.89
		ULS 1/2	1.71	2.02	2.49	3.55	5.84	4.40	3.43	2.80	2.20	1.81	1.46	1.35	1.14	0.88
		L/100	7.03	7.85	8.98	10.65	13.54	8.85	7.76	6.96	6.09	5.45	4.82	4.58	4.17	3.59
		SLS L/150	5.59	6.28	7.24	8.69	11.27	7.13	6.20	5.53	4.81	4.30	3.81	3.62	3.30	2.86
		L/200	4.73	5.32	6.15	7.45	9.80	6.06	5.26	4.68	4.07	3.64	3.23	3.07	2.81	2.45
	II	**ULS 2/3**	2.63	3.03	3.62	4.61	5.84	4.40	3.43	2.80	2.20	1.81	1.47	1.34	1.14	0.88
		ULS 1/2	1.71	1.99	2.49	3.55	5.83	4.41	3.43	2.80	2.20	1.81	1.46	1.35	1.14	0.88
		L/100	7.03	7.86	8.97	10.65	13.54	8.85	7.76	6.97	6.09	5.45	4.82	4.58	4.17	3.59
		SLS L/150	5.59	6.28	7.24	8.69	11.27	7.13	6.20	5.53	4.81	4.31	3.81	3.62	3.30	2.86
		L/200	4.73	5.32	6.15	7.45	9.81	6.06	5.26	4.68	4.07	3.64	3.23	3.07	2.81	2.45
Multi span	**I**	**ULS 2/3**	3.28	3.85	4.75	6.42	9.88	4.25	3.39	2.81	2.24	1.86	1.52	1.40	1.02	0.68
		ULS 1/2	1.62	1.97	2.64	4.21	8.82	4.25	3.39	2.81	2.24	1.86	1.52	1.40	1.02	0.68
		L/100	7.47	8.38	9.66	11.69	13.49	8.18	7.32	6.67	5.92	5.36	4.79	4.56	4.17	3.61
		SLS L/150	6.03	6.81	7.94	9.74	11.03	6.64	5.90	5.34	4.72	4.25	3.80	3.61	3.31	2.88
		L/200	5.13	5.84	6.84	8.49	9.44	5.67	5.02	4.53	4.00	3.60	3.22	3.07	2.82	2.46
	II	**ULS 2/3**	3.24	3.82	4.75	6.42	9.89	4.25	3.39	2.81	2.24	1.86	1.52	1.40	1.02	0.68
		ULS 1/2	1.62	1.97	2.64	4.21	8.82	4.25	3.39	2.81	2.24	1.86	1.52	1.40	1.02	0.68
		L/100	7.47	8.38	9.65	11.69	13.49	8.18	7.32	6.67	5.92	5.36	4.79	4.56	4.17	3.61
		SLS L/150	6.03	6.81	7.94	9.74	11.03	6.64	5.90	5.34	4.72	4.25	3.80	3.61	3.31	2.88
		L/200	5.14	5.83	6.84	8.49	9.44	5.67	5.02	4.53	4.00	3.60	3.22	3.07	2.82	2.46

Maximum allowed span for uniform (wind) characteristic load [kN/m²] Ruukki SPC190/150S

Table 6

External facing thickness: 0.50 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)
Min. end support width: 40 mm
Min. intermediate support width: 60 mm
Min. number of fasteners at end support: 1 or 2
Min. number of fasteners at intermediate support: 2 or 3

ULS – Ultimate Limit State, to find span length put characteristic load (during span length calculation characteristic load is automatically corrected by safety factor)
ULS 2/0 – Ultimate Limit State; 2 fasteners at the end support
ULS 1/0 – Ultimate Limit State; 1 fasteners at the end support
ULS 2/3 – Ultimate Limit State; 2 fasteners at the end support / 3 fasteners at intermediate support
ULS 1/3 – Ultimate Limit State; 1 fasteners at the end support / 3 fasteners at intermediate support
SLS – Serviceability Limit State, to find span length put characteristic load

Static scheme	*Colour group*	*Criterion*	*Characteristic load [kN/m²]*													
			-1.2	*-1.0*	*-0.8*	*-0.6*	*-0.4*	*0.6*	*0.8*	*1.0*	*1.3*	*1.6*	*2.0*	*2.2*	*2.6*	*3.4*
Single span	I	**ULS 2/0**	3.99	4.85	5.68	6.66	8.45	5.47	4.26	3.49	2.74	2.26	1.83	1.65	1.37	1.05
		ULS 1/0	2.01	2.44	3.11	4.28	6.92	5.47	4.26	3.49	2.74	2.25	1.83	1.65	1.37	1.05
		L/100	7.58	8.40	9.49	11.07	13.81	9.31	8.27	7.49	6.60	5.93	5.24	4.95	4.48	3.78
		SLS L/150	6.10	6.83	7.80	9.22	11.69	7.64	6.71	6.01	5.22	4.64	4.04	3.81	3.42	2.87
		L/200	5.15	5.81	6.71	8.03	10.31	6.56	5.71	5.06	4.36	3.84	3.33	3.13	2.81	2.36
	II	**ULS 2/0**	3.99	4.85	5.68	6.66	8.45	5.47	4.26	3.49	2.74	2.25	1.83	1.65	1.37	1.05
		ULS 1/0	2.01	2.44	3.11	4.28	6.92	5.47	4.26	3.49	2.74	2.26	1.83	1.65	1.37	1.05
		L/100	7.59	8.40	9.49	11.07	13.81	9.31	8.27	7.49	6.60	5.93	5.23	4.95	4.48	3.78
		SLS L/150	6.10	6.83	7.80	9.22	11.68	7.64	6.71	6.01	5.22	4.64	4.04	3.81	3.42	2.87
		L/200	5.15	5.81	6.71	8.03	10.31	6.56	5.71	5.06	4.36	3.84	3.34	3.13	2.81	2.36
Two span	I	**ULS 2/3**	2.60	3.02	3.66	4.74	6.67	4.37	3.41	2.79	2.19	1.81	1.46	1.34	1.14	0.88
		ULS 1/2	1.61	1.88	2.29	3.04	5.55	4.37	3.41	2.79	2.19	1.80	1.46	1.34	1.14	0.88
		L/100	9.18	10.27	11.75	13.94	17.71	11.50	10.09	9.04	7.87	7.01	6.16	5.82	5.26	4.45
		SLS L/150	7.24	8.17	9.46	11.39	14.78	9.24	8.01	7.12	6.14	5.44	4.76	4.49	4.06	3.44
		L/200	6.05	6.88	8.02	9.76	12.89	7.82	6.74	5.95	5.12	4.53	3.96	3.73	3.38	2.88
	II	**ULS 2/3**	2.60	3.02	3.64	4.58	6.67	4.38	3.41	2.79	2.19	1.80	1.46	1.34	1.14	0.88
		ULS 1/2	1.62	1.88	2.27	3.03	5.55	4.38	3.41	2.79	2.19	1.80	1.46	1.34	1.14	0.88
		L/100	9.17	10.27	11.75	13.94	17.71	11.50	10.09	9.04	7.87	7.01	6.16	5.82	5.26	4.45
		SLS L/150	7.24	8.17	9.46	11.39	14.78	9.24	8.01	7.12	6.14	5.44	4.76	4.49	4.06	3.44
		L/200	6.05	6.87	8.02	9.76	12.89	7.82	6.74	5.95	5.12	4.53	3.96	3.73	3.38	2.88
Multi span	I	**ULS 2/3**	2.75	3.20	3.87	5.02	7.50	4.38	3.41	2.79	2.19	1.80	1.46	1.34	1.14	0.88
		ULS 1/2	1.32	1.53	1.87	2.64	5.62	4.37	3.41	2.79	2.19	1.81	1.46	1.34	1.14	0.88
		L/100	8.92	9.93	11.29	13.28	16.73	11.06	9.77	8.80	7.71	6.90	6.08	5.75	5.21	4.42
		SLS L/150	7.11	7.99	9.19	10.96	14.05	8.99	7.85	7.00	6.07	5.39	4.71	4.45	4.02	3.4
		L/200	5.99	6.77	7.85	9.47	12.32	7.67	6.64	5.88	5.07	4.48	3.92	3.7	3.34	2.84
	II	**ULS 2/3**	2.74	3.15	3.78	4.90	7.50	4.37	3.41	2.79	2.19	1.80	1.46	1.34	1.14	0.88
		ULS 1/2	1.32	1.53	1.87	2.64	5.62	4.37	3.41	2.79	2.19	1.80	1.46	1.34	1.14	0.88
		L/100	8.93	9.93	11.29	13.27	16.73	11.06	9.77	8.80	7.71	6.90	6.08	5.75	5.21	4.42
		SLS L/150	7.11	7.99	9.19	10.96	14.05	8.99	7.85	7.00	6.07	5.39	4.71	4.45	4.02	3.40
		L/200	5.99	6.77	7.85	9.47	12.32	7.67	6.64	5.88	5.07	4.48	3.92	3.70	3.34	2.84

Contact

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