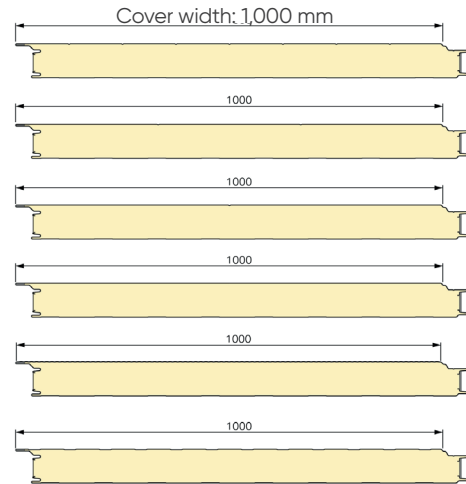
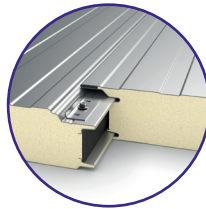


## PIR composite panel

Onnaing (FR)



### Characteristics of the panel

		NOMINAL THICKNESS OF THE PANEL (mm)		
		80	100	120
Dimensions	Thickness of outside / inside (mm)	0.60 / 0.40		
	Overall length (mm)	Minimum 2,500 Maximum 15,000 Shorter lengths up to 200 mm are available on request.		
Aesthetics	Exterior finish	Standard - Microline - Liss - Linéa (125, 333 or 500) <sup>(1)</sup>		
	Interior finish	Standard- Liss on request <sup>(1)</sup>		
Weight (kg/m <sup>2</sup> )	Ex. in standard thicknesses <b>0.60 / 0.40 mm</b>	13.60	14.40	15.20
Reaction to fire	Euroclass according to NF EN 13501-1	<b>B-s1,d0</b>		
Thermal Performance	Thermal resistance Rc (m <sup>2</sup> .K/W)	4.33	5.45	6.54
	Thermal transmittance Uc (W/m <sup>2</sup> .K)	0.22	0.18	0.15
Airtightness	Values for 80 mm thickness (m <sup>3</sup> /h/m <sup>2</sup> )	Pressure		Underpressure
		4 Pa	50 Pa	4 Pa
Polyisocyanurate foam insulation	Density (kg/m <sup>3</sup> )	0.008	0.057	0.006
		40 (±15)		



<sup>(1)</sup> Exact dimensions of the finishes of our sandwich panels are different for each product and production site. Ask our sales team for more details.

## Table of use

Application table for panels in very light colours  
(colour group 1 according to RAGE Panels)

Maximum permissible loads in kN/m<sup>2</sup> according to the spans of use and the fasteners for the thickness of the facings  
**0.60 mm / 0.40 mm.**

Values valid only for fasteners with a characteristic pull-out strength  $P_k/\gamma_m$  of 0.36 kN on 2 supports and 0.43 kN on 3 supports.



	2 SUPPORTS 					Span (m)	3 SUPPORTS 					
	Panel + spreader plates and fixings						Panel + spreader plates and fixings					
	Nominal core thicknesses (mm)						Nominal core thicknesses (mm)					
	50	60	80	100	120		50	60	80	100	120	
Pressure	2.66	3.50	5.18	6.36	7.53	2.00	2.93	3.58	4.90	7.05	9.19	Pressure
Underpressure	1.72	2.05	2.05	2.05	2.05		1.56	1.56	1.56	1.56	1.56	Underpressure
Pressure	2.14	2.84	4.23	5.42	6.60	2.20	2.55	3.05	4.28	6.02	7.76	Pressure
Underpressure	1.50	1.86	1.86	1.86	1.86		1.42	1.42	1.42	1.42	1.42	Underpressure
Pressure	1.76	2.35	3.52	4.67	5.81	2.40	2.26	2.70	3.79	5.22	6.66	Pressure
Underpressure	1.32	1.69	1.71	1.71	1.71		1.30	1.30	1.30	1.30	1.30	Underpressure
Pressure	1.47	1.97	2.98	4.06	5.14	2.60	2.02	2.42	3.39	4.59	5.79	Pressure
Underpressure	1.17	1.50	1.58	1.58	1.58		1.20	1.20	1.20	1.20	1.20	Underpressure
Pressure	1.25	1.68	2.55	3.56	4.58	2.80	1.81	2.17	3.06	4.08	5.09	Pressure
Underpressure	1.04	1.34	1.46	1.46	1.46		1.11	1.11	1.11	1.11	1.11	Underpressure
Pressure	1.07	1.45	2.20	3.15	4.09	3.00	1.61	1.95	2.79	3.66	4.52	Pressure
Underpressure	0.93	1.20	1.37	1.37	1.37		1.04	1.04	1.04	1.04	1.04	Underpressure
Pressure	0.92	1.25	1.93	2.80	3.68	3.20	1.44	1.77	2.56	3.30	4.05	Pressure
Underpressure	0.82	1.07	1.28	1.28	1.28		0.98	0.98	0.98	0.98	0.98	Underpressure
Pressure	0.79	1.09	1.70	2.51	3.32	3.40	1.30	1.61	2.36	3.01	3.65	Pressure
Underpressure	0.73	0.96	1.21	1.21	1.21		0.92	0.92	0.92	0.92	0.92	Underpressure
Pressure	0.69	0.96	1.51	2.26	3.01	3.60	1.17	1.47	2.19	2.76	3.32	Pressure
Underpressure	0.66	0.87	1.14	1.14	1.14		0.87	0.87	0.87	0.87	0.87	Underpressure
Pressure	0.61	0.85	1.35	2.05	2.75	3.80	1.06	1.34	2.04	2.54	3.03	Pressure
Underpressure	0.59	0.79	1.08	1.08	1.08		0.82	0.82	0.82	0.82	0.82	Underpressure
Pressure	0.54	0.76	1.21	1.86	2.51	4.00	0.96	1.23	1.87	2.33	2.79	Pressure
Underpressure	0.54	0.72	1.03	1.03	1.03		0.76	0.78	0.78	0.78	0.78	Underpressure
Pressure	0.48	0.68	1.09	1.67	2.25	4.20	0.88	1.12	1.70	2.12	2.54	Pressure
Underpressure	0.49	0.65	0.98	0.98	0.98		0.70	0.74	0.74	0.74	0.74	Underpressure
Pressure	0.43	0.61	0.98	1.50	2.02	4.40	0.81	1.03	1.56	1.94	2.32	Pressure
Underpressure	0.45	0.59	0.88	0.93	0.93		0.65	0.71	0.71	0.71	0.71	Underpressure
Pressure	0.39	0.55	0.89	1.36	1.83	4.60	0.74	0.94	1.44	1.79	2.14	Pressure
Underpressure	0.41	0.54	0.80	0.89	0.89		0.60	0.68	0.68	0.68	0.68	Underpressure
Pressure	0.35	0.50	0.81	1.24	1.66	4.80	0.69	0.87	1.32	1.65	1.97	Pressure
Underpressure	0.38	0.50	0.73	0.85	0.85		0.56	0.65	0.65	0.65	0.65	Underpressure
Pressure		0.46	0.74	1.13	1.52	5.00	0.64	0.80	1.21	1.52	1.83	Pressure
Underpressure		0.46	0.66	0.82	0.82		0.52	0.62	0.62	0.62	0.62	Underpressure
Pressure		0.42	0.68	1.04	1.39	5.20	0.59	0.74	1.12	1.41	1.70	Pressure
Underpressure		0.42	0.61	0.79	0.79		0.49	0.60	0.60	0.60	0.60	Underpressure
Pressure		0.39	0.63	0.95	1.28	5.40	0.55	0.69	1.04	1.31	1.58	Pressure
Underpressure		0.39	0.56	0.76	0.76		0.46	0.58	0.58	0.58	0.58	Underpressure
Pressure			0.58	0.88	1.18	5.60		0.64	0.96	1.22	1.48	Pressure
Underpressure			0.52	0.73	0.73			0.56	0.56	0.56	0.56	Underpressure
Pressure			0.53	0.81	1.09	5.80		0.60	0.89	1.14	1.38	Pressure
Underpressure			0.48	0.70	0.71			0.54	0.54	0.54	0.54	Underpressure
Pressure			0.50	0.76	1.01	6.00		0.56	0.83	1.07	1.30	Pressure
Underpressure			0.45	0.66	0.68			0.52	0.52	0.52	0.52	Underpressure

## Table of use

Application table for panels in light colours  
(colour group 2 according to RAGE Panels)

Maximum permissible loads in kN/m<sup>2</sup> according to the spans of use and the fasteners for the thickness of the facings  
**0.60 mm / 0.40 mm.**

Values valid only for fasteners with a characteristic pull-out strength  $P_k/\gamma_m$  of 0.36 kN on 2 supports and 0.43 kN on 3 supports.



	2 SUPPORTS 					Span (m)	3 SUPPORTS 					
	Panel + spreader plates and fixings						Panel + spreader plates and fixings					
	Nominal core thicknesses (mm)						Nominal core thicknesses (mm)					
	50	60	80	100	120		50	60	80	100	120	
Pressure	2.66	3.50	5.18	6.36	7.53	2.00	2.05	2.51	3.43	4.94	6.43	Pressure
Underpressure	1.72	2.05	2.05	2.05	2.05		1.34	1.46	1.56	1.56	1.56	Underpressure
Pressure	2.14	2.84	4.23	5.42	6.60	2.20	1.79	2.14	3.00	4.21	5.43	Pressure
Underpressure	1.50	1.86	1.86	1.86	1.86		1.22	1.39	1.42	1.42	1.42	Underpressure
Pressure	1.76	2.35	3.52	4.67	5.81	2.40	1.58	1.89	2.65	3.65	4.66	Pressure
Underpressure	1.32	1.69	1.71	1.71	1.71		1.11	1.28	1.30	1.30	1.30	Underpressure
Pressure	1.47	1.97	2.98	4.06	5.14	2.60	1.41	1.69	2.37	3.21	4.05	Pressure
Underpressure	1.17	1.50	1.58	1.58	1.58		1.00	1.18	1.20	1.20	1.20	Underpressure
Pressure	1.25	1.68	2.55	3.56	4.58	2.80	1.27	1.52	2.14	2.86	3.56	Pressure
Underpressure	1.04	1.34	1.46	1.46	1.46		0.90	1.09	1.11	1.11	1.11	Underpressure
Pressure	1.07	1.45	2.20	3.15	4.09	3.00	1.13	1.37	1.95	2.56	3.16	Pressure
Underpressure	0.93	1.20	1.37	1.37	1.37		0.82	1.02	1.04	1.04	1.04	Underpressure
Pressure	0.92	1.25	1.93	2.80	3.68	3.20	1.01	1.24	1.79	2.31	2.84	Pressure
Underpressure	0.82	1.07	1.28	1.28	1.28		0.74	0.95	0.98	0.98	0.98	Underpressure
Pressure	0.79	1.09	1.70	2.51	3.32	3.40	0.91	1.13	1.65	2.11	2.56	Pressure
Underpressure	0.73	0.96	1.21	1.21	1.21		0.68	0.88	0.92	0.92	0.92	Underpressure
Pressure	0.69	0.96	1.51	2.26	3.01	3.60	0.82	1.03	1.53	1.93	2.32	Pressure
Underpressure	0.66	0.87	1.14	1.14	1.14		0.62	0.83	0.87	0.87	0.87	Underpressure
Pressure	0.61	0.85	1.35	2.05	2.75	3.80	0.74	0.94	1.43	1.78	2.12	Pressure
Underpressure	0.59	0.79	1.08	1.08	1.08		0.57	0.78	0.82	0.82	0.82	Underpressure
Pressure	0.54	0.76	1.21	1.86	2.51	4.00	0.67	0.86	1.31	1.63	1.95	Pressure
Underpressure	0.54	0.72	1.03	1.03	1.03		0.53	0.74	0.78	0.78	0.78	Underpressure
Pressure	0.48	0.68	1.09	1.67	2.25	4.20	0.62	0.78	1.19	1.48	1.78	Pressure
Underpressure	0.49	0.65	0.98	0.98	0.98		0.49	0.68	0.74	0.74	0.74	Underpressure
Pressure	0.43	0.61	0.98	1.50	2.02	4.40	0.57	0.72	1.09	1.36	1.62	Pressure
Underpressure	0.45	0.59	0.88	0.93	0.93		0.46	0.63	0.71	0.71	0.71	Underpressure
Pressure	0.39	0.55	0.89	1.36	1.83	4.60	0.52	0.66	1.01	1.25	1.50	Pressure
Underpressure	0.41	0.54	0.80	0.89	0.89		0.42	0.59	0.68	0.68	0.68	Underpressure
Pressure	0.35	0.50	0.81	1.24	1.66	4.80	0.48	0.61	0.92	1.16	1.38	Pressure
Underpressure	0.38	0.50	0.73	0.85	0.85		0.39	0.55	0.65	0.65	0.65	Underpressure
Pressure		0.46	0.74	1.13	1.52	5.00	0.45	0.56	0.85	1.06	1.28	Pressure
Underpressure		0.46	0.66	0.82	0.82		0.36	0.52	0.62	0.62	0.62	Underpressure
Pressure		0.42	0.68	1.04	1.39	5.20	0.41	0.52	0.78	0.99	1.19	Pressure
Underpressure		0.42	0.61	0.79	0.79		0.34	0.49	0.60	0.60	0.60	Underpressure
Pressure		0.39	0.63	0.95	1.28	5.40	0.39	0.48	0.73	0.92	1.11	Pressure
Underpressure		0.39	0.56	0.76	0.76		0.32	0.46	0.58	0.58	0.58	Underpressure
Pressure			0.58	0.88	1.18	5.60		0.45	0.67	0.85	1.04	Pressure
Underpressure			0.52	0.73	0.73			0.43	0.56	0.56	0.56	Underpressure
Pressure			0.53	0.81	1.09	5.80		0.42	0.62	0.80	0.97	Pressure
Underpressure			0.48	0.70	0.71			0.41	0.53	0.54	0.54	Underpressure
Pressure			0.50	0.76	1.01	6.00		0.39	0.58	0.75	0.91	Pressure
Underpressure			0.45	0.66	0.68			0.39	0.50	0.52	0.52	Underpressure

## Table of use

Application table for panels in dark colours  
(colour group 3 according to RAGE Panels)

Maximum permissible loads in kN/m<sup>2</sup> according to the spans of use and the fasteners for the thickness of the facings  
**0.60 mm / 0.40 mm.**

Values valid only for fasteners with a characteristic pull-out strength  $P_k/\gamma_m$  of 0.36 kN on 2 supports and 0.43 kN on 3 supports.

	2 SUPPORTS 					Span (m)	3 SUPPORTS 					
	Panel + spreader plates and fixings						Panel + spreader plates and fixings					
	Nominal core thicknesses (mm)						Nominal core thicknesses (mm)					
	50	60	80	100	120		50	60	80	100	120	
Pressure	2.66	3.50	5.18	6.36	7.53	2.00	1.47	1.79	2.45	3.53	4.60	Pressure
Underpressure	1.72	2.05	2.05	2.05	2.05		0.87	0.87	0.87	0.87	0.87	Underpressure
Pressure	2.14	2.84	4.23	5.42	6.60	2.20	1.28	1.53	2.14	3.01	3.88	Pressure
Underpressure	1.50	1.86	1.86	1.86	1.86		0.79	0.79	0.79	0.79	0.79	Underpressure
Pressure	1.76	2.35	3.52	4.67	5.81	2.40	1.13	1.35	1.90	2.61	3.33	Pressure
Underpressure	1.32	1.69	1.71	1.71	1.71		0.72	0.72	0.72	0.72	0.72	Underpressure
Pressure	1.47	1.97	2.98	4.06	5.14	2.60	1.01	1.21	1.70	2.30	2.90	Pressure
Underpressure	1.17	1.50	1.58	1.58	1.58		0.67	0.67	0.67	0.67	0.67	Underpressure
Pressure	1.25	1.68	2.55	3.56	4.58	2.80	0.91	1.09	1.53	2.04	2.55	Pressure
Underpressure	1.04	1.34	1.46	1.46	1.46		0.62	0.62	0.62	0.62	0.62	Underpressure
Pressure	1.07	1.45	2.20	3.15	4.09	3.00	0.81	0.98	1.40	1.83	2.26	Pressure
Underpressure	0.93	1.20	1.37	1.37	1.37		0.58	0.58	0.58	0.58	0.58	Underpressure
Pressure	0.92	1.25	1.93	2.80	3.68	3.20	0.72	0.89	1.28	1.65	2.03	Pressure
Underpressure	0.82	1.07	1.28	1.28	1.28		0.53	0.54	0.54	0.54	0.54	Underpressure
Pressure	0.79	1.09	1.70	2.51	3.32	3.40	0.65	0.81	1.18	1.51	1.83	Pressure
Underpressure	0.73	0.96	1.21	1.21	1.21		0.49	0.51	0.51	0.51	0.51	Underpressure
Pressure	0.69	0.96	1.51	2.26	3.01	3.60	0.59	0.74	1.10	1.38	1.66	Pressure
Underpressure	0.66	0.87	1.14	1.14	1.14		0.45	0.48	0.48	0.48	0.48	Underpressure
Pressure	0.61	0.85	1.35	2.05	2.75	3.80	0.53	0.67	1.02	1.27	1.52	Pressure
Underpressure	0.59	0.79	1.08	1.08	1.08		0.41	0.46	0.46	0.46	0.46	Underpressure
Pressure	0.54	0.76	1.21	1.86	2.51	4.00	0.48	0.62	0.94	1.17	1.40	Pressure
Underpressure	0.54	0.72	1.03	1.03	1.03		0.38	0.44	0.44	0.44	0.44	Underpressure
Pressure	0.48	0.68	1.09	1.67	2.25	4.20	0.44	0.56	0.85	1.06	1.27	Pressure
Underpressure	0.49	0.65	0.98	0.98	0.98		0.35	0.42	0.42	0.42	0.42	Underpressure
Pressure	0.43	0.61	0.98	1.50	2.02	4.40	0.41	0.52	0.78	0.97	1.16	Pressure
Underpressure	0.45	0.59	0.88	0.93	0.93		0.33	0.40	0.40	0.40	0.40	Underpressure
Pressure	0.39	0.55	0.89	1.36	1.83	4.60	0.37	0.47	0.72	0.90	1.07	Pressure
Underpressure	0.41	0.54	0.80	0.89	0.89		0.30	0.38	0.38	0.38	0.38	Underpressure
Pressure	0.35	0.50	0.81	1.24	1.66	4.80	0.35	0.44	0.66	0.83	0.99	Pressure
Underpressure	0.38	0.50	0.73	0.85	0.85		0.28*	0.36	0.36	0.36	0.36	Underpressure
Pressure		0.46	0.74	1.13	1.52	5.00	0.32	0.40	0.61	0.76	0.92	Pressure
Underpressure		0.46	0.66	0.82	0.82		0.26*	0.35	0.35	0.35	0.35	Underpressure
Pressure		0.42	0.68	1.04	1.39	5.20	0.30	0.37	0.56	0.71	0.85	Pressure
Underpressure		0.42	0.61	0.79	0.79		0.25*	0.34	0.34	0.34	0.34	Underpressure
Pressure		0.39	0.63	0.95	1.28	5.40	0.28*	0.35	0.52	0.66	0.79	Pressure
Underpressure		0.39	0.56	0.76	0.76		0.23*	0.32	0.32	0.32	0.32	Underpressure
Pressure			0.58	0.88	1.18	5.60		0.32	0.48	0.61	0.74	Pressure
Underpressure			0.52	0.73	0.73			0.31	0.31	0.31	0.31	Underpressure
Pressure			0.53	0.81	1.09	5.80		0.30	0.45	0.57	0.69	Pressure
Underpressure			0.48	0.70	0.71			0.30	0.30	0.30	0.30	Underpressure
Pressure			0.50	0.76	1.01	6.00		0.28*	0.42	0.54	0.65	Pressure
Underpressure			0.45	0.66	0.68			0.28*	0.29*	0.29*	0.29*	Underpressure

\* For weight loads less than 30 daN/m<sup>2</sup>, the panel can only be used as a partition.