

Maximum allowed load for span length – sandwich panel Gorlicka D 1000 gr. 160 mm

External facing thickness:	0,4 mm	Number of fasteners at end support:	3
Internal facing thickness:	0,4 mm	Number of fasteners at intermediate support:	3
External temperature : summer/winter	55, 65, 80/-20 deg.C	Core material :	PIR
Internal temperature : summer/winter	20 / 20 deg. C	Steel type:	S250GD
Minimum end support width:	40 mm	Ultimate limit state (to compare with design loads)	ULS
Minimum intermediate support width:	60 mm	Serviceability limit state (to compare with characteristic loads)	SLS

Static schema	Colour group	Criterion	Maximum uniformly distributed load [kN/m ²]										
			Axial span length										
			1,5	2	2,5	3	3,5	4	4,5	5	5,5	6	6,5

Single-span system	I	ULS	pressure	7,411	5,465	4,309	3,543	2,999	2,593	2,277	2,025	1,820	1,649	1,504
			suction	-4,232	-3,152	-2,511	-2,086	-1,785	-1,559	-1,384	-1,245	-1,031	-0,863	-0,733
	L/100	SLS	pressure	9,567	7,089	5,618	4,644	3,952	3,434	2,929	2,427	2,028	1,705	1,442
			suction	-3,369	-2,509	-1,999	-1,661	-1,421	-1,241	-1,102	-0,991	-0,900	-0,825	-0,761
	L/150	SLS	pressure	9,567	6,861	4,884	3,700	2,906	2,335	1,904	1,569	1,303	1,088	0,912
			suction	-3,369	-2,509	-1,999	-1,661	-1,421	-1,241	-1,102	-0,991	-0,900	-0,825	-0,761
	L/200	SLS	pressure	8,137	5,109	3,626	2,739	2,143	1,714	1,391	1,140	0,940	0,779	0,629
			suction	-3,369	-2,509	-1,999	-1,661	-1,421	-1,241	-1,102	-0,991	-0,900	-0,825	-0,761
	II	ULS	pressure	7,411	5,465	4,309	3,543	2,999	2,593	2,277	2,025	1,820	1,649	1,504
			suction	-4,232	-3,152	-2,511	-2,086	-1,785	-1,559	-1,384	-1,245	-1,026	-0,858	-0,729
L/100		SLS	pressure	9,567	7,089	5,618	4,644	3,952	3,434	2,929	2,427	2,028	1,705	1,442
			suction	-3,369	-2,509	-1,999	-1,661	-1,421	-1,241	-1,102	-0,991	-0,900	-0,825	-0,761
L/150		SLS	pressure	9,567	6,861	4,884	3,700	2,906	2,335	1,904	1,569	1,303	1,088	0,912
			suction	-3,369	-2,509	-1,999	-1,661	-1,421	-1,241	-1,102	-0,991	-0,900	-0,825	-0,761
L/200		SLS	pressure	8,137	5,109	3,626	2,739	2,143	1,714	1,391	1,140	0,940	0,779	0,629
			suction	-3,369	-2,509	-1,999	-1,661	-1,421	-1,241	-1,102	-0,991	-0,900	-0,825	-0,761
III		ULS	pressure	7,411	5,465	4,309	3,543	2,999	2,593	2,277	2,025	1,820	1,649	1,504
			suction	-4,232	-3,152	-2,511	-2,086	-1,785	-1,559	-1,384	-1,237	-1,018	-0,852	-0,723
	L/100	SLS	pressure	9,567	7,089	5,618	4,644	3,952	3,434	2,929	2,427	2,028	1,705	1,442
			suction	-3,369	-2,509	-1,999	-1,661	-1,421	-1,241	-1,102	-0,991	-0,900	-0,825	-0,761
	L/150	SLS	pressure	9,567	6,861	4,884	3,700	2,906	2,335	1,904	1,569	1,303	1,088	0,912
			suction	-3,369	-2,509	-1,999	-1,661	-1,421	-1,241	-1,102	-0,991	-0,900	-0,825	-0,761
	L/200	SLS	pressure	8,137	5,109	3,626	2,739	2,143	1,714	1,391	1,140	0,940	0,779	0,629
			suction	-3,369	-2,509	-1,999	-1,661	-1,421	-1,241	-1,102	-0,991	-0,900	-0,825	-0,740

Multi-span system	I	ULS	pressure	5,910	4,264	3,306	2,684	2,249	1,928	1,553	1,111	0,816	0,589	0,425	
			suction	-1,829	-1,335	-1,056	-0,877	-0,753	-0,661	-0,590	-0,533	-0,486	-0,447	-0,414	
		L/100	SLS	pressure	7,785	5,667	4,428	3,620	3,054	2,636	2,303	1,718	1,321	1,040	0,833
				suction	-1,515	-1,106	-0,874	-0,725	-0,622	-0,545	-0,485	-0,438	-0,399	-0,367	-0,339
		L/150	SLS	pressure	7,785	5,667	4,380	3,500	2,870	2,395	2,025	1,718	1,321	1,040	0,833
				suction	-1,515	-1,106	-0,874	-0,725	-0,622	-0,545	-0,485	-0,438	-0,399	-0,367	-0,339
	L/200	SLS	pressure	5,896	4,238	3,248	2,588	2,115	1,760	1,482	1,259	1,077	0,926	0,798	
			suction	-1,515	-1,106	-0,874	-0,725	-0,622	-0,545	-0,485	-0,438	-0,399	-0,367	-0,339	
	II	ULS	pressure	5,910	4,264	3,306	2,684	2,249	1,928	1,553	1,111	0,816	0,589	0,425	
			suction	-1,754	-1,277	-1,011	-0,843	-0,726	-0,639	-0,572	-0,518	-0,474	-0,437	-0,405	
		L/100	SLS	pressure	7,785	5,667	4,428	3,620	3,054	2,636	2,303	1,718	1,321	1,040	0,833
				suction	-1,464	-1,068	-0,845	-0,703	-0,603	-0,530	-0,473	-0,428	-0,391	-0,360	-0,333
		L/150	SLS	pressure	7,785	5,667	4,380	3,500	2,870	2,395	2,025	1,718	1,321	1,040	0,833
				suction	-1,464	-1,068	-0,845	-0,703	-0,603	-0,530	-0,473	-0,428	-0,391	-0,360	-0,333
	L/200	SLS	pressure	5,896	4,238	3,248	2,588	2,115	1,760	1,482	1,259	1,077	0,926	0,798	
			suction	-1,464	-1,068	-0,845	-0,703	-0,603	-0,530	-0,473	-0,428	-0,391	-0,360	-0,333	
	III	ULS	pressure	5,886	4,264	3,306	2,684	2,249	1,928	1,553	1,111	0,816	0,589	0,425	
			suction	-1,641	-1,191	-0,945	-0,791	-0,685	-0,606	-0,545	-0,496	-0,455	-0,421	-0,391	
L/100		SLS	pressure	7,785	5,667	4,428	3,620	3,054	2,636	2,303	1,718	1,321	1,040	0,833	
			suction	-1,389	-1,010	-0,801	-0,668	-0,576	-0,508	-0,455	-0,413	-0,378	-0,349	-0,324	
L/150		SLS	pressure	7,785	5,667	4,380	3,500	2,870	2,395	2,025	1,718	1,321	1,040	0,833	
			suction	-1,389	-1,010	-0,801	-0,668	-0,576	-0,508	-0,455	-0,413	-0,378	-0,349	-0,324	
L/200	SLS	pressure	5,896	4,238	3,248	2,588	2,115	1,760	1,482	1,259	1,077	0,926	0,798		
		suction	-1,389	-1,010	-0,801	-0,668	-0,576	-0,508	-0,455	-0,413	-0,378	-0,349	-0,324		

I colour group :	very bright	RAL: 1015,7035, 9002, 9010, 9016
II colour group :	bright	RAL: 5012, 9006, 9007
III colour group :	dark	RAL: 3000, 5010, 6029, 7016, 7024,

For other values of the internal temperature, thickness and material lining, etc., Please contact us to perform separate calculations.