

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

External facing thickness:	0,5 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/m2]										
			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	-1,032	-0,863	-0,733
		SLS L/100	pressure	9,566	7,088	5,618	4,644	3,951	3,434	3,032	2,534	2,125	1,794	1,523
			suction	-3,369	-2,509	-1,999	-1,661	-1,421	-1,241	-1,102	-0,991	-0,900	-0,825	-0,761
		SLS L/150	pressure	9,566	7,088	5,090	3,842	3,015	2,425	1,983	1,640	1,367	1,147	0,966
			suction	-3,369	-2,509	-1,999	-1,661	-1,421	-1,241	-1,102	-0,991	-0,900	-0,825	-0,761
	SLS L/200	pressure	8,748	5,380	3,781	2,844	2,225	1,782	1,450	1,193	0,989	0,823	0,671	
		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	-1,025	-0,858	-0,728
		SLS L/100	pressure	9,566	7,088	5,618	4,644	3,951	3,434	3,032	2,534	2,125	1,794	1,523
			suction	-3,369	-2,509	-1,999	-1,661	-1,421	-1,241	-1,102	-0,991	-0,900	-0,825	-0,761
SLS L/150		pressure	9,566	7,088	5,090	3,842	3,015	2,425	1,983	1,640	1,367	1,147	0,966	
		suction	-3,369	-2,509	-1,999	-1,661	-1,421	-1,241	-1,102	-0,991	-0,900	-0,825	-0,761	
SLS L/200	pressure	8,748	5,380	3,781	2,844	2,225	1,782	1,450	1,193	0,989	0,823	0,671		
	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	-1,236	-1,015	-0,849	-0,721	
	SLS L/100	pressure	9,566	7,088	5,618	4,644	3,951	3,434	3,032	2,534	2,125	1,794	1,523	
		suction	-3,369	-2,509	-1,999	-1,661	-1,421	-1,241	-1,102	-0,991	-0,900	-0,825	-0,761	
	SLS L/150	pressure	9,566	7,088	5,090	3,842	3,015	2,425	1,983	1,640	1,367	1,147	0,966	
		suction	-3,369	-2,509	-1,999	-1,661	-1,421	-1,241	-1,102	-0,991	-0,900	-0,825	-0,761	
SLS L/200	pressure	8,748	5,380	3,781	2,844	2,225	1,782	1,450	1,193	0,989	0,823	0,671		
	suction	-3,369	-2,509	-1,999	-1,661	-1,421	-1,241	-1,102	-0,991	-0,900	-0,825	-0,761		

Multi-span system	I	ULS	pressure	5,916	4,268	3,308	2,684	2,248	1,927	1,524	1,026	0,694	0,474	0,322
			suction	-1,824	-1,328	-1,048	-0,870	-0,747	-0,656	-0,585	-0,529	-0,483	-0,444	-0,412
		SLS L/100	pressure	7,796	5,676	4,435	3,625	3,057	2,638	2,316	1,716	1,312	1,028	0,820
			suction	-1,512	-1,102	-0,870	-0,721	-0,618	-0,541	-0,482	-0,435	-0,397	-0,365	-0,337
		SLS L/150	pressure	7,796	5,676	4,408	3,531	2,902	2,429	2,060	1,716	1,312	1,028	0,820
			suction	-1,512	-1,102	-0,870	-0,721	-0,618	-0,541	-0,482	-0,435	-0,397	-0,365	-0,337
	SLS L/200	pressure	5,910	4,256	3,269	2,611	2,140	1,785	1,508	1,286	1,104	0,953	0,820	
		suction	-1,512	-1,102	-0,870	-0,721	-0,618	-0,541	-0,482	-0,435	-0,397	-0,365	-0,337	
	II	ULS	pressure	5,916	4,268	3,308	2,684	2,248	1,927	1,524	1,026	0,694	0,474	0,322
			suction	-1,746	-1,267	-1,001	-0,834	-0,718	-0,632	-0,566	-0,513	-0,469	-0,432	-0,401
		SLS L/100	pressure	7,796	5,676	4,435	3,625	3,057	2,638	2,316	1,716	1,312	1,028	0,820
			suction	-1,460	-1,062	-0,839	-0,697	-0,598	-0,525	-0,469	-0,424	-0,388	-0,357	-0,331
		SLS L/150	pressure	7,796	5,676	4,408	3,531	2,902	2,429	2,060	1,716	1,312	1,028	0,820
			suction	-1,460	-1,062	-0,839	-0,697	-0,598	-0,525	-0,469	-0,424	-0,388	-0,357	-0,331
	SLS L/200	pressure	5,910	4,256	3,269	2,611	2,140	1,785	1,508	1,286	1,104	0,953	0,820	
		suction	-1,460	-1,062	-0,839	-0,697	-0,598	-0,525	-0,469	-0,424	-0,388	-0,357	-0,331	
	III	ULS	pressure	5,794	4,268	3,308	2,684	2,248	1,927	1,524	1,026	0,694	0,474	0,322
			suction	-1,629	-1,176	-0,931	-0,778	-0,674	-0,596	-0,536	-0,488	-0,448	-0,415	-0,386
SLS L/100		pressure	7,796	5,676	4,435	3,625	3,057	2,638	2,316	1,716	1,312	1,028	0,820	
		suction	-1,381	-1,001	-0,792	-0,660	-0,569	-0,502	-0,450	-0,408	-0,374	-0,345	-0,321	
SLS L/150		pressure	7,796	5,676	4,408	3,531	2,902	2,429	2,060	1,716	1,312	1,028	0,820	
		suction	-1,381	-1,001	-0,792	-0,660	-0,569	-0,502	-0,450	-0,408	-0,374	-0,345	-0,321	
SLS L/200	pressure	5,910	4,256	3,269	2,611	2,140	1,785	1,508	1,286	1,104	0,953	0,820		
	suction	-1,381	-1,001	-0,792	-0,660	-0,569	-0,502	-0,450	-0,408	-0,374	-0,345	-0,321		

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.