

Maximum allowed load for span length – sandwich panel Gorlicka U 1000 gr. 140 mm

External facing thickness:	0,5 mm	Number of fasteners at end support:	PM1 +2
Internal facing thickness:	0,4 mm	Number of fasteners at intermediate support:	PM1 +2
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	7,631	5,684	4,528	3,763	3,219	2,812	2,497	2,245	2,039	1,831	1,558
			suction	-2,573	-1,917	-1,527	-1,269	-1,085	-0,948	-0,841	-0,756	-0,687	-0,629	-0,580
	L/100	SLS	pressure	9,713	7,235	5,764	4,790	4,098	3,580	3,179	2,795	2,287	1,889	1,575
			suction	-3,424	-2,550	-2,032	-1,688	-1,444	-1,262	-1,120	-1,007	-0,915	-0,838	-0,773
	L/150	SLS	pressure	9,713	7,235	5,764	4,698	3,646	2,877	2,302	1,863	1,524	1,259	1,049
			suction	-3,424	-2,550	-2,032	-1,688	-1,444	-1,262	-1,120	-1,007	-0,915	-0,838	-0,773
	L/200	SLS	pressure	9,055	6,310	4,640	3,523	2,734	2,158	1,726	1,386	1,095	0,872	0,699
			suction	-3,424	-2,550	-2,032	-1,688	-1,444	-1,262	-1,120	-1,007	-0,915	-0,838	-0,743
	II	ULS	pressure	7,631	5,684	4,528	3,763	3,219	2,812	2,497	2,245	2,039	1,831	1,558
			suction	-2,573	-1,917	-1,527	-1,269	-1,085	-0,948	-0,841	-0,756	-0,687	-0,629	-0,580
L/100		SLS	pressure	9,713	7,235	5,764	4,790	4,098	3,580	3,179	2,795	2,287	1,889	1,575
			suction	-3,424	-2,550	-2,032	-1,688	-1,444	-1,262	-1,120	-1,007	-0,915	-0,838	-0,773
L/150		SLS	pressure	9,713	7,235	5,764	4,698	3,646	2,877	2,302	1,863	1,524	1,259	1,049
			suction	-3,424	-2,550	-2,032	-1,688	-1,444	-1,262	-1,120	-1,007	-0,915	-0,838	-0,773
L/200		SLS	pressure	9,055	6,310	4,640	3,523	2,734	2,158	1,726	1,386	1,095	0,872	0,699
			suction	-3,424	-2,550	-2,032	-1,688	-1,444	-1,262	-1,120	-1,007	-0,915	-0,823	-0,656
III		ULS	pressure	7,631	5,684	4,528	3,763	3,219	2,812	2,497	2,245	2,039	1,831	1,558
			suction	-2,573	-1,917	-1,527	-1,269	-1,085	-0,948	-0,841	-0,756	-0,687	-0,629	-0,580
	L/100	SLS	pressure	9,713	7,235	5,764	4,790	4,098	3,580	3,179	2,795	2,287	1,889	1,575
			suction	-3,424	-2,550	-2,032	-1,688	-1,444	-1,262	-1,120	-1,007	-0,915	-0,838	-0,773
	L/150	SLS	pressure	9,713	7,235	5,764	4,698	3,646	2,877	2,302	1,863	1,524	1,259	1,049
			suction	-3,424	-2,550	-2,032	-1,688	-1,444	-1,262	-1,120	-1,007	-0,915	-0,838	-0,509
	L/200	SLS	pressure	8,687	6,310	4,640	3,523	2,734	2,158	1,726	1,386	1,095	0,872	0,699
			suction	-3,424	-2,550	-2,032	-1,688	-1,444	-1,262	-1,120	-1,007	-0,751	-0,485	-0,291

Multi-span system	I	ULS	pressure	5,927	4,346	3,434	2,843	2,428	1,995	1,494	1,163	0,932	0,764	0,639	
			suction	-2,216	-1,624	-1,288	-1,072	-0,920	-0,807	-0,719	-0,649	-0,592	-0,544	-0,503	
		L/100	SLS	pressure	7,731	5,669	4,473	3,696	3,151	2,745	2,075	1,626	1,310	1,080	0,906
				suction	-1,804	-1,322	-1,048	-0,870	-0,746	-0,653	-0,581	-0,524	-0,477	-0,438	-0,405
		L/150	SLS	pressure	7,731	5,669	4,473	3,696	3,151	2,745	2,075	1,626	1,310	1,080	0,906
				suction	-1,804	-1,322	-1,048	-0,870	-0,746	-0,653	-0,581	-0,524	-0,477	-0,438	-0,405
	L/200	SLS	pressure	7,731	5,669	4,473	3,696	3,151	2,597	2,075	1,626	1,310	1,080	0,906	
			suction	-1,804	-1,322	-1,048	-0,870	-0,746	-0,653	-0,581	-0,524	-0,477	-0,438	-0,405	
	II	ULS	pressure	5,927	4,346	3,434	2,843	2,428	1,995	1,494	1,163	0,932	0,764	0,639	
			suction	-2,138	-1,568	-1,246	-1,040	-0,895	-0,787	-0,703	-0,636	-0,580	-0,534	-0,495	
		L/100	SLS	pressure	7,731	5,669	4,473	3,696	3,151	2,745	2,075	1,626	1,310	1,080	0,906
				suction	-1,752	-1,285	-1,020	-0,849	-0,729	-0,640	-0,571	-0,515	-0,470	-0,432	-0,400
		L/150	SLS	pressure	7,731	5,669	4,473	3,696	3,151	2,745	2,075	1,626	1,310	1,080	0,906
				suction	-1,752	-1,285	-1,020	-0,849	-0,729	-0,640	-0,571	-0,515	-0,470	-0,432	-0,400
	L/200	SLS	pressure	7,731	5,669	4,473	3,696	3,151	2,597	2,075	1,626	1,310	1,080	0,906	
suction			-1,752	-1,285	-1,020	-0,849	-0,729	-0,640	-0,571	-0,515	-0,470	-0,432	-0,400		
III	ULS	pressure	5,927	4,346	3,434	2,843	2,428	1,995	1,494	1,163	0,932	0,764	0,639		
		suction	-2,023	-1,483	-1,184	-0,992	-0,858	-0,757	-0,679	-0,616	-0,564	-0,520	-0,483		
	L/100	SLS	pressure	7,731	5,669	4,473	3,696	3,151	2,745	2,075	1,626	1,310	1,080	0,906	
			suction	-1,675	-1,228	-0,978	-0,817	-0,704	-0,620	-0,555	-0,502	-0,459	-0,423	-0,392	
	L/150	SLS	pressure	7,731	5,669	4,473	3,696	3,151	2,745	2,075	1,626	1,310	1,080	0,906	
			suction	-1,675	-1,228	-0,978	-0,817	-0,704	-0,620	-0,555	-0,502	-0,459	-0,423	-0,392	
L/200	SLS	pressure	7,731	5,669	4,473	3,696	3,151	2,597	2,075	1,626	1,310	1,080	0,906		
		suction	-1,675	-1,228	-0,978	-0,817	-0,704	-0,620	-0,555	-0,502	-0,459	-0,423	-0,392		

<b>I colour group :</b>	very bright	RAL: 1015,7035, 9002, 9010, 9016
<b>II colour group :</b>	bright	RAL: 5012, 9006, 9007
<b>III colour group :</b>	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.