

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:	0,5 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	1,830	1,557
			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	2,858	2,441	2,027	1,697
			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	4,790	3,791	3,014	2,428	1,978	1,627	1,351	1,131
			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	9,713	6,410	4,749	3,635	2,843	2,260	1,821	1,471	1,168	0,935	0,754
			suction	-3,424	-2,550	-2,032	-1,688	-1,444	-1,262	-1,120	-1,007	-0,915	-0,838	-0,773

Multi-span system	I	ULS	pressure	5,928	4,342	3,429	2,837	2,422	2,115	1,878	1,569	1,256	1,029	0,859
			suction	-2,208	-1,615	-1,280	-1,064	-0,913	-0,801	-0,714	-0,644	-0,588	-0,540	-0,500
	L/100	SLS	pressure	7,742	5,674	4,475	3,696	3,150	2,746	2,434	2,126	1,710	1,407	1,179
			suction	-1,800	-1,317	-1,042	-0,865	-0,741	-0,649	-0,578	-0,521	-0,475	-0,436	-0,403
	L/150	SLS	pressure	7,742	5,674	4,475	3,696	3,150	2,746	2,434	2,126	1,710	1,407	1,179
			suction	-1,800	-1,317	-1,042	-0,865	-0,741	-0,649	-0,578	-0,521	-0,475	-0,436	-0,403
	L/200	SLS	pressure	7,742	5,674	4,475	3,696	3,150	2,675	2,229	1,876	1,592	1,360	1,170
			suction	-1,800	-1,317	-1,042	-0,865	-0,741	-0,649	-0,578	-0,521	-0,475	-0,436	-0,403

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.