

PoliCarb®

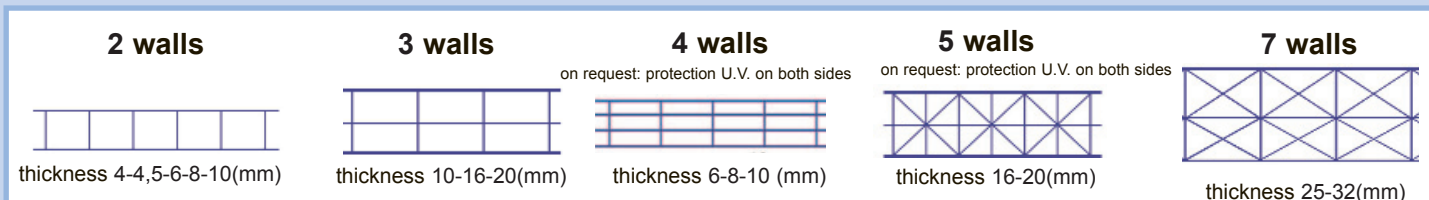
Multiwall U.V. protected polycarbonate sheets

NEWS
4 WALLS
2 U.V PROTECTED SIDES



Policarb® has been awarded:
"AVIS THECNIQUE - certificate nr.6/00-1314"

The characteristic structure of the multiwall sheets with air space inside guarantees good thermal insulation and excellent resistance to crash stress. The external side of **Policarb®** is coated with U.V. protection (on request both sides) warranting resistance to aging due to atmospheric agents and UV rays.



PRODUCTION STANDARDS

Struttura	2 WALLS				3 WALLS				4 WALLS			5 WALLS		7 WALLS	
	4	4,5	6	8	10	10	16	20	6	8	10	16RDC	20RDC	25	32
Thickness (mm)	4	4,5	6	8	10	10	16	20	6	8	10	16RDC	20RDC	25	32
Width (mm)	2.100				980-1.200-1.250-2.100				2.100			980-2.100		1.200	
Length (mm)	6.000														
Weight (Kg/m ³)	0.8	1.0	1.3	1.5	1.7	2.1	2.7	3.2	1.35	1.55	1.75	2.55	3.1	3.2	3.5
Thermal transmittance K															
Valore W/m ² K	3.9	3.9	3.5	3.3	3.0	2.7	2.3	2.2	3.1	2.78	2.5	2.1	1.9	1.5	1.4
Valore Kcal/m ² °C	3.3	3.3	3.0	2.8	2.6	2.3	2.0	1.9	2.6	2.35	2.1	1.8	1.6	1.3	1.2
Light transmission %															
Crystal	85	84	80	81	82	74	74	75	79	79	79	65	65	69	66
Bronze	57	57	51	65	65	41	37	35				30	30	35	35
Opal	58	58	57	57	57	52	52	52	50	50	50	40	40	42	42
Opal 30%			37	37	35	35	32	32						35	36
Reflecto					48		48					35		37	35
Blue			53	53	48		45								
Green			54	54	54		42								
Solar Heat Gain Coefficient %															
Crystal	83	82	80	82	82	75	75	77	81	81	81	68	68	61	60
Bronze	66	66	66	70	75	57	57	57				50	50	50	50
Opal	66	66	66	65	64	62	63	63	51	51	51	45	45	50	54
Opal 30%			47	47	46	45	44	43						37	35
Reflecto					45		45					40		43	43
Blu			66	70	70		65								
Verde			66	70	70		60								
Shading Coefficient (SC)															
Crystal	0.95	0.94	0.91	0.94	0.94	0.86	0.86	0.88	0.93	0.93	0.93	0.78	0.78	0.61	0.69
Bronze	0.76	0.76	0.76	0.80	0.86	0.65	0.65	0.65				0.57	0.57	0.57	0.57
Opal	0.76	0.76	0.76	0.75	0.74	0.71	0.72	0.72	0.58	0.58	0.58	0.52	0.52	0.57	0.62
Opal 30%			0.54	0.54	0.53	0.52	0.50	0.49						0.42	0.40
Reflecto					0.52		0.52					0.46		0.59	0.49
Blue			0.76	0.80	0.80		0.74								
Green			0.76	0.80	0.80		0.69								
Linear thermal expansion	6,5 x 10 ⁻⁵ (m/m°C) - 0,065mm/m°C														
Fire reaction	CLASS 1														

"ADVANTAGES"

- LIGHT TRANSMISSION
- SOLAR FACTOR
- RESISTANCE TO UV RAYS AND TO HAIL
- ENERGY SAVING

The structure of Polycarb® multiwall sheets is a good alternative in all situations where thermal insulation is important, since it reduces heat loss.

Heat loss is commonly indicated by the value "K" (transmittance). The installation of a Polycarb® sheet instead of a common single wall glass means a considerable fuel saving (see section "ESTIMATE OF ENERGY SAVING").

THERMOWELDING

Policarb® sheets can be supplied welded at their ends, (up to 10mm th.) ensuring throughout time the cleanliness of the inside of the alveolus and greater transparency. (See section "general characteristic of product" page 6/7)



dott. gallina

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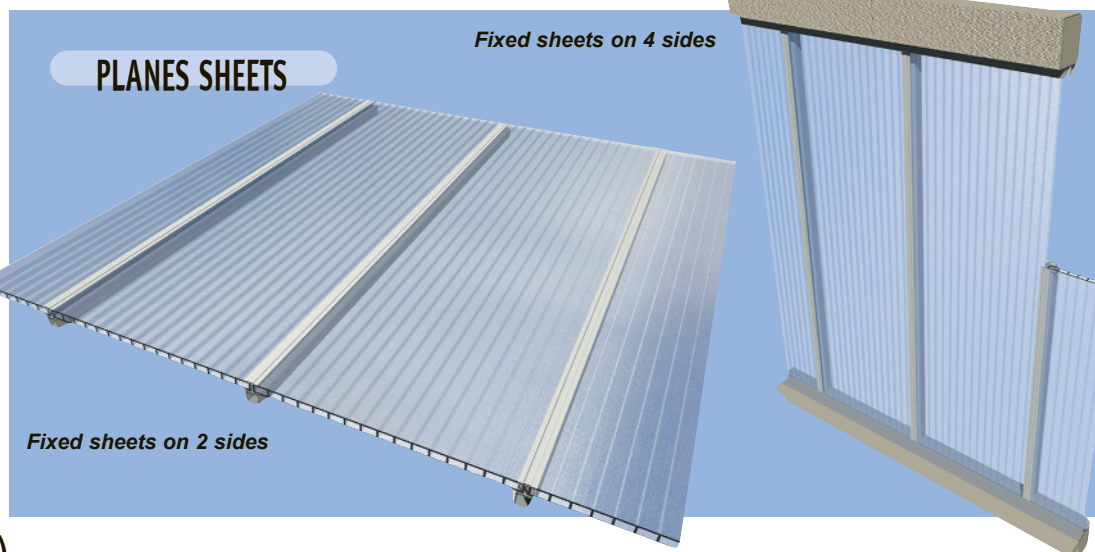
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The choice of sheet thickness is based on the requested values of snow/wind loads and on sheet dimensions. The indicated values in the following charts (in pressure and in depression) are established considering fixed sheets on the 4 sides, with an admitted rise value:

1/20 width

1/50 length or max. 50mm



LOAD CAPACITY (daN/m²)

FIXED PLANE SHEETS ON 4 SIDES

6 mm

Length (m)	Width (m)				
	0,70	0,60	0,50	0,40	
1,00	50	80	105	120	
1,50	40	70	105	110	
2,00	45	85	100	110	
2,50	60	80	90	100	
3,00	55	80	90	100	

10mm

Length (m)	Width (m)				
	1,20	1,00	0,80	0,70	0,50
1,00	30	45	70	90	190
1,50	30	45	70	130	170
2,00	30	45	75	105	170
2,50	30	45	90	100	170
3,00	25	45	75	80	170

16 mm

Length (m)	Width (m)				
	1,20	1,00	0,90	0,80	0,60
1,00	105	135	150	175	280
1,50	70	135	140	150	210
2,00	70	130	135	140	150
2,50	70	110	120	130	140
3,00	60	90	120	130	140

16RDC

Length (m)	Width (m)				
	1,20	1,00	0,90	0,80	0,60
1,00	65	140	160	200	290
1,50	60	140	155	180	240
2,00	60	130	135	150	180
2,50	50	90	95	100	160
3,00	50	70	70	100	140

20 mm

Length (m)	Width (m)				
	1,20	1,00	0,90	0,80	0,60
1,00	100	120	140	200	280
1,50	90	110	115	180	230
2,00	70	100	115	160	220
2,50	70	90	110	140	210
3,00	65	90	105	135	180

20RDC

Length (m)	Width (m)				
	1,20	1,00	0,90	0,80	0,60
1,00	110	150	170	200	280
1,50	70	140	150	185	240
2,00	60	135	140	155	180
2,50	50	90	95	100	170
3,00	50	70	70	100	150

25 mm

Length (m)	Width (m)				
	1,20	1,00	0,90	0,80	0,60
1,00	255	300	330	370	525
1,50	135	165	195	225	345
2,00	100	120	135	165	300
2,50	70	105	130	155	270
3,00	50	70	105	105	225

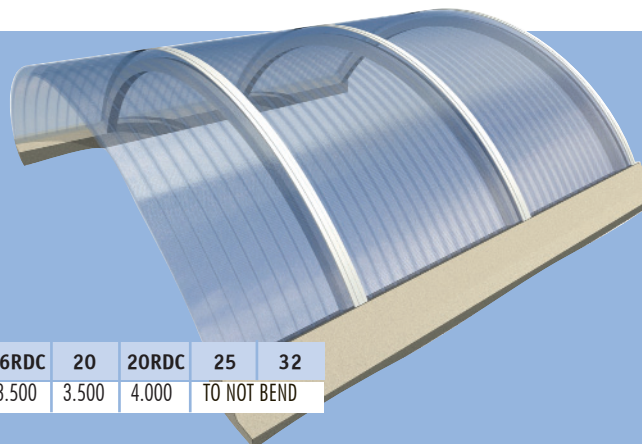
32 mm

Length (m)	Width (m)				
	1,20	1,00	0,90	0,80	0,60
1,00	345	360	440	505	600
1,50	265	275	300	310	500
2,00	150	175	195	210	300
2,50	90	130	155	165	180
3,00	70	120	125	130	160

COLD BENDED SHEET

In particular **Policarb®** is used to build integral arc structures (green house tunnel type) since its alveolar structure increases the rigidity of the sheet longitudinally bent at its ribs.

It is recommended not to go under the bending radius of load charts.



Sheet thickness (mm)	4,5	6	8	10	10-3P	16	16RDC	20	20RDC	25	32
Minimum radium (mm)	750	1.000	1.250	1.750	2.000	2.800	3.500	3.500	4.000	TO NOT BEND	

The chart shows max width of sheets in relation to thickness, with the bending radius and with the requested load.
To carry out the bending in an

easier way, the length of the sheet has to be bigger than the width.

LOADING CAPACITY (daN/m²)

FIXED SHEETS, COLD BENDED ON 4 SIDES

Bended radius	LOADS																			
	80 daN/m ²				100 daN/m ²				120 daN/m ²				140 daN/m ²							
Width sheet (m)																				
1.0	1.80					1.50					1.25					1.07				
1.2	1.50					1.25					1.00					0.90				
1.4	1.20	1.90				0.96	1.70				0.83	1.30				0.72 1.10				
1.6	1.00	1.65				0.82	1.27				0.68	1.06				0.60 0.92				
1.8	0.80	1.23	1.68			0.64	1.00	1.38			0.58	0.84	1.18			0.73 1.02				
2.0	0.75	1.15	1.60			0.60	0.92	1.28			0.55	0.78	1.08			0.68 0.93				
2.2	0.67	0.98	1.35				0.82	1.12				0.70	0.95			0.82				
2.4	0.60	0.88	1.23				0.70	1.00				0.84				0.74				
2.6		0.75	1.07					0.90												
2.8			0.93	1.92					1.58					1.33		1.15				
3.0			0.88	1.78					1.45					1.21		1.06				
3.2			0.83	1.62					1.32					1.11		0.97				
3.4			0.75	1.48					1.24					1.07		0.95				
3.6				1.40	1.60				1.20	1.25				1.04	1.15	0.92 1.00				
3.8				1.30	1.50				1.15	1.20				1.00	1.12	0.90 1.00				
4.0				1.20	1.38				1.10	1.15				1.05		0.97				
4.2				1.20	1.35					1.10				1.00		0.95				
4.4				1.12	1.28					1.07				0.98		0.95				
4.6					1.20					1.05				0.98		0.93				
4.8					1.15					1.00				0.95		0.90				
SHEET THICKNESS (mm)																				
	6	8	10	16	16RDC	6	8	10	16	16RDC	6	8	10	16	16RDC	6	8	10	16	16RDC

ACCESSORIES

Policarb® sheets dispose of a complete series of accessories for flat and curved transparent roofing, and walls as well, that help the product adapt to a wide variety of uses.

FIXING WASHERS

The fixing of the panels to the structures must be done using suitable washers with seals, which ensure the hold of the fixing point, and the dilatation of the material due to temperature variations.

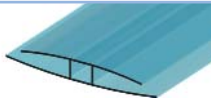


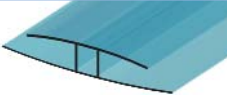
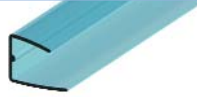
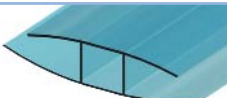
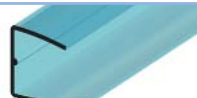
CLOSING TAPES

Adhesive steel tapes of varying heights for the closing of the alveoli are available:

- H.19mm for sheets th.4,5mm - 6mm
- H.25mm for sheets th. 8mm - 10mm
- H.38mm for sheets th.16mm
- H.60mm for sheets th.25mm - 32mm

THERMOWELDING

Policarb® sheets can be supplied welded at their ends, (up to 10mm th.) maintaining throughout time the inside of the sheet clean and ensuring greater transparency.

Thickness (mm)	Length (mm)	PROFILES "H" U.V. protected	Thickness (mm)	Length (mm)	PROFILES "U"	Thickness (mm)	WASHER WITH GASKET
4,5 - 6	6000		4,5 - 6	2100		4,5 - 6	
8 - 10	6000		8 - 10	2100		8 - 10	
10	6000		16	2100		16	

