

# ALVECOLAR

## MULTIWALL POLYCARBONATE SHEETS

### APPLICATIONS

TRANSPARENCY, LIGHTNESS AND THERMAL INSULATION PROVIDE THE NECESSARY CHARACTERISTICS TO THE ALVECOLAR PRODUCT TO MEET BOTH THE TECHNICAL-APPLICATION SOLUTIONS REQUESTED AND THE REGULATIONS IN FORCE FOR THE DESIGN AND RESTORATION OF CIVIL AND INDUSTRIAL BUILDINGS:

- HIGH THERMAL INSULATION;
- LIGHT MANAGEMENT
- EXCELLENT FIRE BEHAVIOR;
- EXCELLENT SELF-WEIGHT/MECHANICAL STRENGTH RATIO;
- EXCELLENT LOAD RESISTANCE PERFORMANCE;
- UNCHANGED PHYSICAL/MECHANICAL PROPERTIES OVER TIME;

THANKS TO THESE CHARACTERISTICS, THE ALVECOLAR SHEETS ARE THE IDEAL SOLUTION FOR A VARIETY OF APPLICATIONS: DOORS, WINDOWS AND SHUTTERS, SKYLIGHTS, ROOFS, COVERINGS, CURTAIN WALLS, FALSE CEILINGS AND PARTITION WALLS.

### TRANSPARENCY

THE PHYSICAL CHARACTERISTICS OF POLYCARBONATE PROVIDE TO THE ALVECOLAR PRODUCT THE ABILITY TO CONVEY INSIDE BUILDINGS A HIGH PERCENTAGE OF LIGHT, WHICH THANKS TO SPECIAL PIGMENTS CAN BE MANAGED ACCORDING TO DESIGN NEEDS.

### LIGHTNESS

THE LOW SPECIFIC WEIGHT OF POLYCARBONATE MAKES THE ALVECOLAR PRODUCT VERY LIGHT, MINIMIZING LABOR COSTS FOR INSTALLATION OF THE PRODUCT AND ENHANCING LOAD RESISTANCE PERFORMANCE.

### TECHNICAL CHARACTERISTICS

Reaction to fire	EUROCLASS B s1 d0
Linear expansion	0,065 mm/m°C
Operating temperature	-30°C + 120°C
Vicat (B/50)	150°C

### LIGHT TRANSMITTANCE LT (%)

STRUCTURE	Thickness	Crystal %	Bronze %	Opal %
2W	4	84	65	55
2W	6	82	62	51
2W	8	80	62	50
2W	10	80	60	48
5W/X	16	65	40	55
5W/X	20	60	30	40
5W/X	25	60	28	40
10 W/X	16	55	-	37
10 W/X	20	52	-	34
10 W/X	25	50	32	34
10 W/X	32	48	30	31
10W/X	35	48	-	31
10W/X	40	45	26	28

### THERMAL INSULATION

MULTIPLE-WALL DRAWINGS AND THICKNESSES THAT POPULATE THE WIDE RANGE OF THE ALVECOLAR PRODUCT COMBINED WITH THE CHEMICALPHYSICAL CHARACTERISTICS OF POLYCARBONATE MINIMIZE THERMAL EXCHANGE, ENHANCING PRODUCT PERFORMANCE AND METING THE REGULATIONS IN FORCE IN TERMS OF ENERGY SAVINGS.

### IMPACT RESISTANCE

THE MECHANICAL CHARACTERISTICS OF POLYCARBONATE PROVIDE TO THE ALVECOLAR PRODUCT HIGH IMPACT RESISTANCE, WHICH IS OPTIMIZED AGAINST DAMAGES CAUSED BY WEATHER AGENTS AND ACCIDENTAL IMPACTS, MEETING THE REGULATIONS IN FORCE IN TERMS OF SAFETY.


### FIRE BEHAVIOR

ALVECOLAR IS CLASSIFIED EURO CLASS B-S1,D0.

### GUARANTEE OVER TIME

THE MODERN PLANTS USED BY ALVECO, EQUIPPED WITH THE MOST RECENT AND ADVANCED TECHNOLOGY FOR THE MANUFACTURING OF ALVEOLAR SHEETS ALLOW PRODUCING THE ALVECOLAR PRODUCT WITH UV PROTECTION ON BOTH SIDES BY APPLYING THE UV ABSORBER, WHICH PROTECTS THE SHEET FROM AGING CAUSED BY UV RAYS.

THE UV PROTECTION HINDERS THE DEGRADATION OF THE SHEET, PRESERVING THE ALVECOLAR PRODUCT FROM LOSS OF MECHANICAL CHARACTERISTICS, BRIGHTNESS AND TRANSPARENCY. THE ALVECOLAR PRODUCT IS GUARANTEED FOR A 10-YEAR PERIOD.

SECTION	THICKNESS	WIDTH	LENGTH	WEIGHT kg/m <sup>2</sup>	Thermal U W/m <sup>2</sup> K
	4 mm	2.100	6.000	0,80	3,90
	6 mm	2.100	6.000	1,30	3,60
	8 mm	2.100	6.000	1,50	3,30
	10 mm	2.100	6.000	1,70	2,60
	16 mm	2.100	6.000	2,50	2,00
	20 mm	2.100	6.000	3,10	1,80
	25 mm	2.100	6.000	3,10	1,60
	16 mm	2.100	6.000	2,80	1,70
	20 mm	2.100	6.000	3,20	1,50
	25 mm	2.100	6.000	3,30	1,30
	32 mm	2.100	6.000	3,50	1,10
	35 mm	2.100	6.000	3,80	1,10
	40 mm	2.100	6.000	4,10	1,00

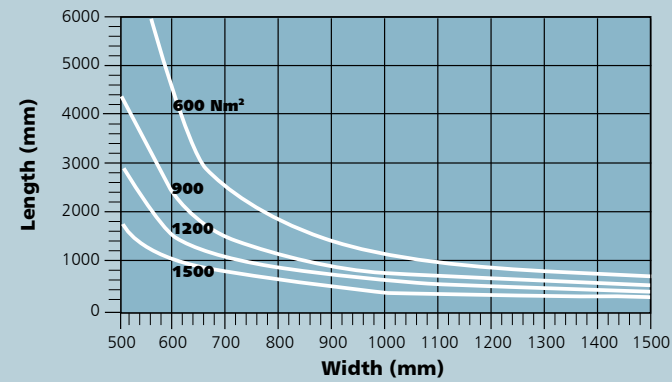
# ALVECOLAR LOADING CAPACITY TABLES

SPECIAL SHEETS IN FLAT ALVEOLAR POLYCARBONATE

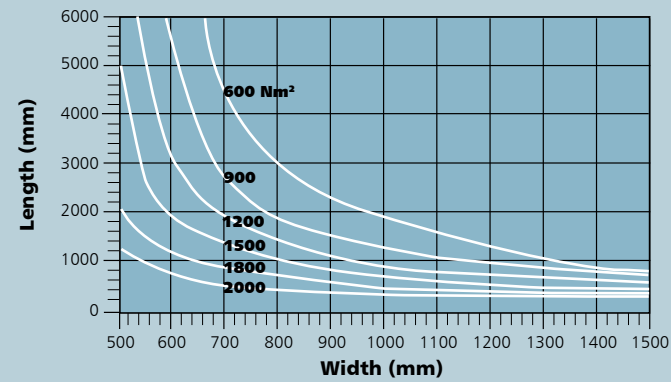
## ALVECOLAR CAPACITY

THE TABLES BELOW REPORT THE LOAD VALUES FOR SHEETS ANCHORED ON FOUR SIDES.

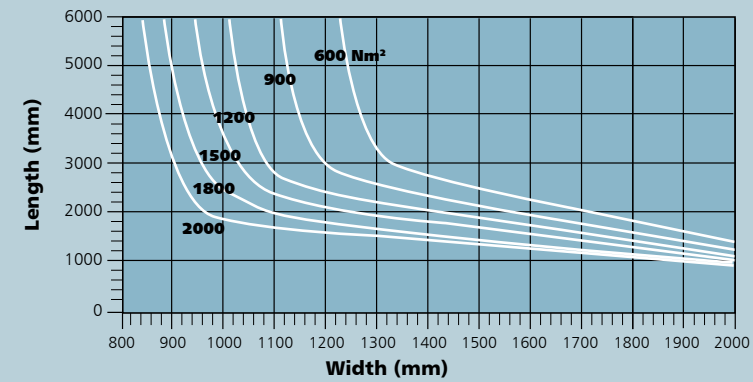
**ALVECOLAR 6 mm 2P**



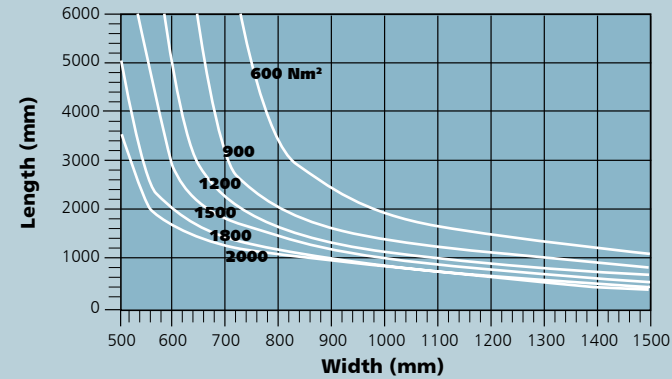
**ALVECOLAR 8 mm 2P**



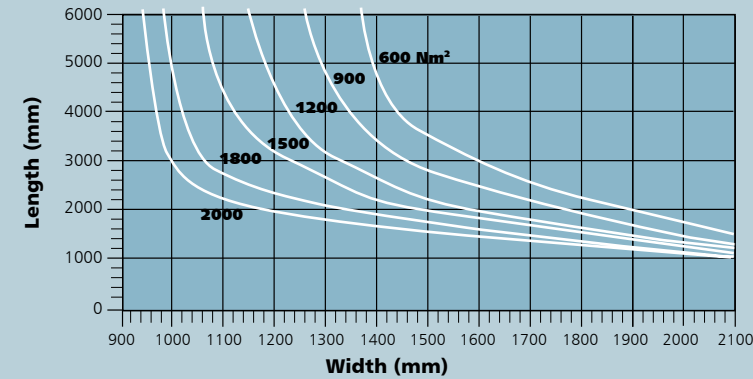
**ALVECOLAR 20/25 mm 10PX**



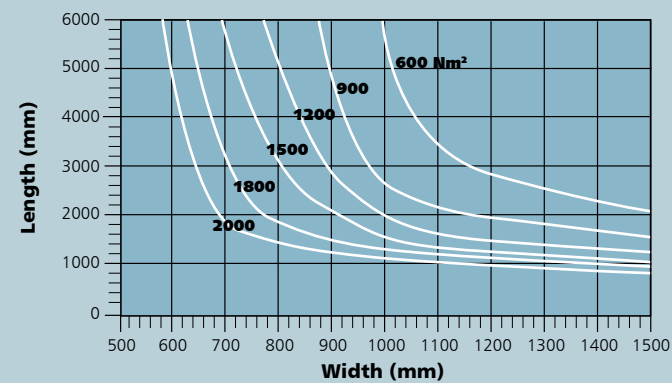
**ALVECOLAR 10 mm 2P**



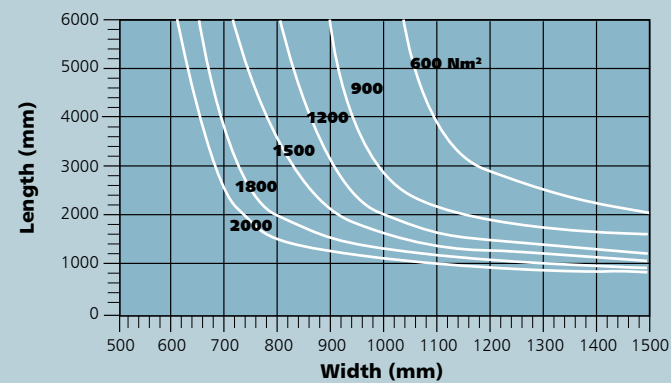
**ALVECOLAR 32/35 mm 10PX**



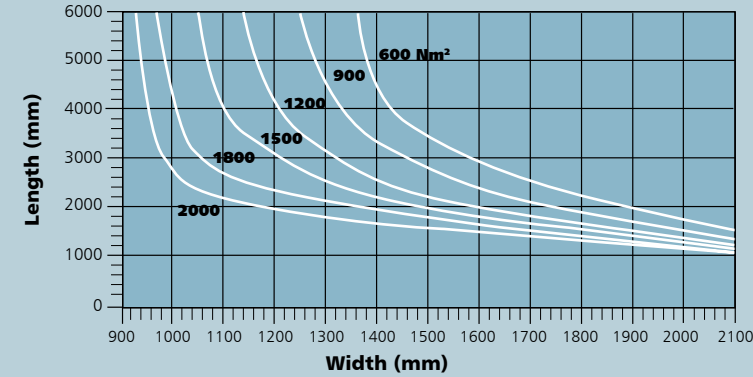
**ALVECOLAR 16 mm 5PX / 10 PX**



**ALVECOLAR 20 mm 5PX**



**ALVECOLAR 40 mm 10PX**



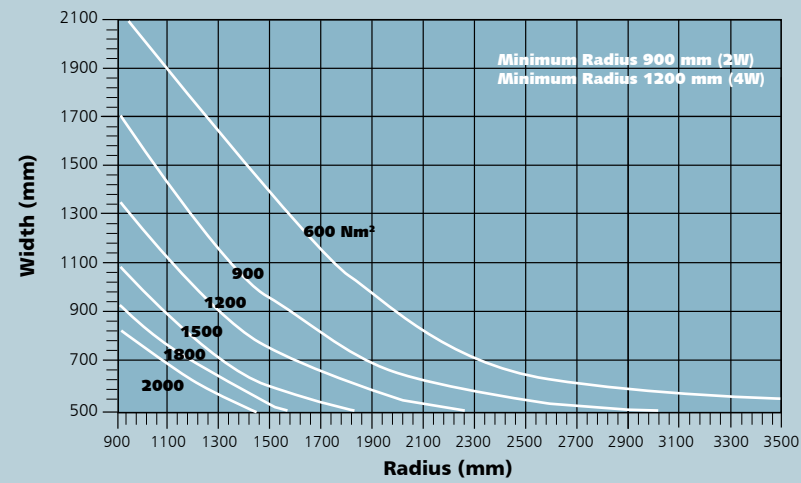
# ALVECOLAR

SPECIAL SHEETS IN CURVED ALVEOLAR POLYCARBONATE

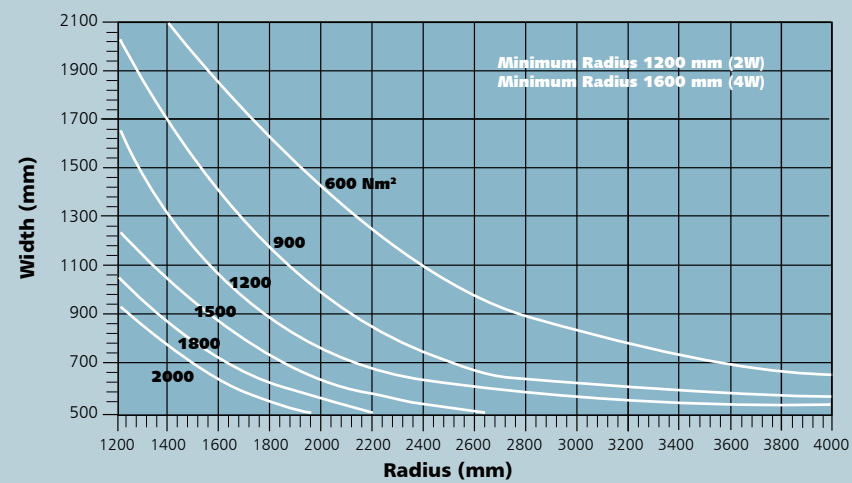
## ALVECOLAR CAPACITY APPLICATION CURVE

THE GRAPHS SHOW THE PERMISSIBLE WIDTH OF THE SHEET BASED ON THE LOAD AND BENDING RADIUS

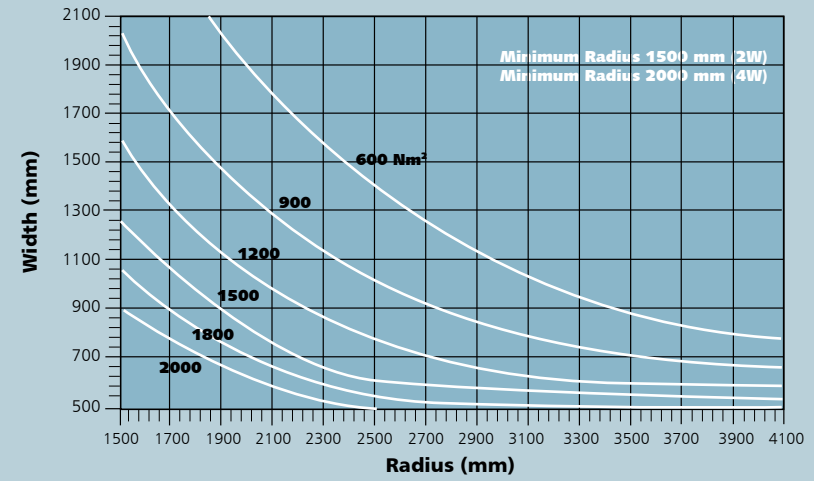
### ALVECOLAR 6mm 2P



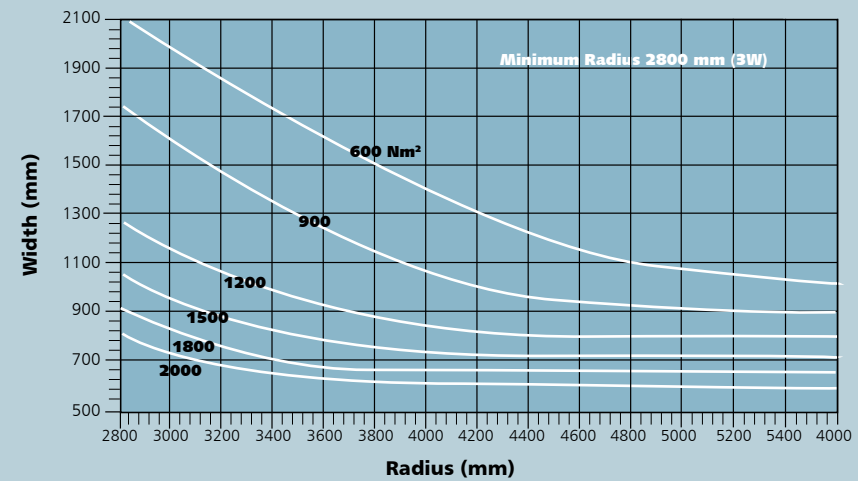
### ALVECOLAR 8mm 2P



### ALVECOLAR 10mm 2P



### ALVECOLAR 16mm 5PX



### ALVECOLAR 20mm 5PX

