

# POLYCASA SPC

# SPC IS A RANGE OF POLYCARBONATE SHEETS — AS CLEAR AS GLASS BUT STRONGER AND MORE RESISTANT TO IMPACT.

In fact, SPC is virtually unbreakable. Light, strong, weatherproof, and insulating against heat and cold, this material has a long working life and carries a 10 year warranty against yellowing. So, it's no wonder SPC is seen as an attractive sheet for use as roofing, cladding and glazing in construction, agriculture, industry and DIY.



## PRODUCT IDENTIFICATION

Polycasa\* SPC is the brand name for extruded multi-wall polycarbonate sheets.

It offers solutions for both indoor and outdoor applications, and is a lightweight sheet which is easy to transport, handle and install.

SPC sheets offer excellent aesthetic and optical properties. Standard colours are clear, opal and bronze.

#### CHARACTERISTICS

- High impact resistance.
- Weather resistant.
- High heat and sound insulation.
- Long life span.
- Excellent light transmission up to 86% (6 mm).
- Large dimensions.
- Excellent resistance to chemicals.
- Transparent.
- UV protection: co-extruded 1 side or 2 side.
- 10 year warranty.
- Excellent fire safety EN 13501 standard (Euroclass).
- Temperature resistant: between -40°C +130°C.
- High resistance to mechanical loading.
- Light-weight.
- Easy to install using ordinary tools.
- Superb thermal insulation saves energy.
- Computer checked colours and material properties.

## APPLICATIONS

- Roofing and glazing.
- Skylights.
- Cladding. • Shelters.
- Vaults.
- Partitions.

Boxes.

- Suspended ceilings.

- Conservatories.
- Advertising panels. Winter gardens.
- Protective covers for fragile items.
- Pergolas.

### **CERTIFICATIONS**\*







• Swimming pool enclosures.





\*Sheets are manufactured to EN 16153:2013

TECHNICAL INFO	ORMATION							
		SPC 4 / 2 w	SPC 6 / 2 w	SPC 8 / 2 w	SPC 8 / 4 w	SPC 10 / 2 w	SPC 10 / 4 w	
Design of the flutes							I ####	
Thiskness	mm	4	6	8	8	10	10	
Thickness	tolerance			+/- 0	5 mm			
Light transmission	clear sheet	86%	86%	81%	70%	84%	67%	
U value	watts/(m².K)	3.9	3.5	3.2	2.8	3.0	2.5	
Weight	g/m²	900	1300	1500	1500	1700	1700	
	tolerance g/m <sup>2</sup>	+/- 45	+/- 65	+/- 75	+/- 75	+/- 85	+/- 85	
Standard widths	mm	2100 -2/+6 mm						
Standard lengths	tolerance mm	-27 + 0 mm 6000 and 7000 mm						
Standard lengths	tolerance	-0 / + 0.40 % (24 - 28 mm)						
	toicianee	SPC 16 / 3 w	SPC 16 / 5 w	SPC 16 / 7 w	SPC 16 Diamond	SPC 20 Diam	ond SPC 25 Diamon	
Design of the flutes		######	#####	J. C 10/ / W	***************************************	****	*	
		16	16	16	16	20	25	
Thickness	mm	16	16	16	16 20 '- 0.5 mm		25	
Light transmission	tolerance clear sheet	73%	62%	54%	59%	62%	64%	
U value	watts/(m².K)	2.3	2.0	1.9	1.8	1.7	1.5	
	g/m²	2700	2500	2650	2500	3000	3300	
Weight	tolerance g/m²	+/- 135	+/- 125	+/- 133	+/- 125	+/- 150	+/- 165	
Standard widths	mm	980 / 1200 / 2100	980 / 2100	980 / 2100	980 / 1200 / 2100	2100	980 / 2100	
Januara Widths	tolerance	222, 1200, 2100	1		6 mm	75072100		
Standard lengths	mm	6000 and 7000 mm						
	tolerance	-0 / + 0.40 % (24 - 28 mm)						
GENERAL	·	·						
Property				Method	Unit		POLYCASA SPC	
Density				ISO 1183 g/cm <sup>3</sup>		1.2		
Rockwell hardness				D-785 M scale			-	
OPTICAL								
Property				Method Unit			POLYCASA SPC	
Light transmission				DIN 5036 T3	96		86	
Refractive index				ISO 489	n <sup>D</sup> 20		1.585	
MECHANICAL								
Property				Method	Unit		POLYCASA SPC	
Flexural modulus				ISO 489	MPa		-	
Flexural strength				ISO 178 MPa			>95	
Tensile modulus				ISO 527	MPa	MPa 2200		
Tensile strength				ISO 527 MPa			60	
Elongation				ISO 527	96		80	
THERMAL								
Property				Method	Unit		POLYCASA SPC	
Vicat temperature (VST/B 50)				ISO 306	°C		145	
Heat deflection temperat				ISO R75	°C		135	
Specific heat capacity				-	J/gK		1.17	
Coefficient of linear therr	mal expansion			DIN 53328 K <sup>-1</sup> x10		6.5		
Thermal conductivity				DIN 52612 W/mK		0.2		
Degradation temperature				°€		>280		
Max. service temperature continuous use				°€		115		
Max. service temperature short term use  Shoot forming temperature range.				°C		130		
Sheet forming temperature range							180-210	
IMPACT STRENGTHS				1				
Property				Method	Unit		POLYCASA SPC	
Izod (notched)				ISO 180 KJ/m²		-		
Charpy (notched)				ISO 179 KJ/m²			>10	
Charpy (unnotched)				ISO 179	KJ/m²		NB	
ELECTRICAL								
Property				Method	Unit		POLYCASA SPC	
Dielectric constant 50 HZ				DIN 53483			3.0	
Volume resistivity				DIN 53482	Ω.cm		1015	
Surface resistivity				DIN 53482	Ω		1015	
Surface resistivity		Dielectric strength						
				DIN 53481	kV/mm		>30	

<sup>\*</sup>Other lengths are available upon request subject to production citeria.