

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.



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.
- Vaults.
- Suspended ceilings.
- Conservatories.
- Advertising panels.
- Protective covers for fragile items.
- Pergolas.
- Cladding.
- Shelters.
- Partitions.
- Swimming pool enclosures.
- Boxes.
- Winter gardens.

CERTIFICATIONS*



KPF Erkelenz tested
*Sheets are manufactured to EN 16153 :2013

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.

TECHNICAL INFORMATION

		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							
Thickness	mm	4	6	8	8	10	10
	tolerance	+/- 0.5 mm					
Light transmission	clear sheet	86%	86%	81%	70%	84%	67%
	watts/(m²K)	3.9	3.5	3.2	2.8	3.0	2.5
Weight	g/m²	900	1300	1500	1500	1700	1700
	tolerance g/m²	+/- 45	+/- 65	+/- 75	+/- 75	+/- 85	+/- 85
Standard widths	mm	2100					
	tolerance	-2 / + 6 mm					
Standard lengths*	mm	6000 and 7000 mm					
	tolerance	-0 / + 0.40 % (24 - 28 mm)					

		SPC 16 / 3 w	SPC 16 / 5 w	SPC 16 / 7 w	SPC 16 Diamond	SPC 20 Diamond	SPC 25 Diamond
Design of the flutes							
Thickness	mm	16	16	16	16	20	25
	tolerance	+/- 0.5 mm					
Light transmission	clear sheet	73%	62%	54%	59%	62%	64%
	watts/(m²K)	2.3	2.0	1.9	1.8	1.7	1.5
Weight	g/m²	2700	2500	2650	2500	3000	3300
	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
	tolerance	-2 / + 6 mm					
Standard lengths*	mm	6000 and 7000 mm					
	tolerance	-0 / + 0.40 % (24 - 28 mm)					

GENERAL			
Property	Method	Unit	POLYCASA SPC
Density	ISO 1183	g/cm³	1.2
Rockwell hardness	D-785	M scale	-
OPTICAL			
Property	Method	Unit	POLYCASA SPC
Light transmission	DIN 5036 T3	%	86
Refractive index	ISO 489	n _{D20}	1.585
MECHANICAL			
Property	Method	Unit	POLYCASA SPC
Flexural modulus	ISO 489	MPa	-
Flexural strength	ISO 178	MPa	>95
Tensile modulus	ISO 527	MPa	2200
Tensile strength	ISO 527	MPa	60
Elongation	ISO 527	%	80
THERMAL			
Property	Method	Unit	POLYCASA SPC
Vicat temperature (VST/B 50)	ISO 306	°C	145
Heat deflection temperature (A)	ISO R75	°C	135
Specific heat capacity	-	J/gK	1.17
Coefficient of linear thermal expansion	DIN 53328	K ⁻¹ ×10 ⁻⁵	6.5
Thermal conductivity	DIN 52612	W/mK	0.2
Degradation temperature		°C	>280
Max. service temperature continuous use		°C	115
Max. service temperature short term use		°C	130
Sheet forming temperature range		°C	180-210
IMPACT STRENGTHS			
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	10 ¹⁵
Surface resistivity	DIN 53482	Ω	10 ¹⁵
Dielectric strength	DIN 53481	kV/mm	>30
Dissipation factor (50 HZ)	DIN 53483		8x10/4w

*Other lengths are available upon request subject to production criteria.