

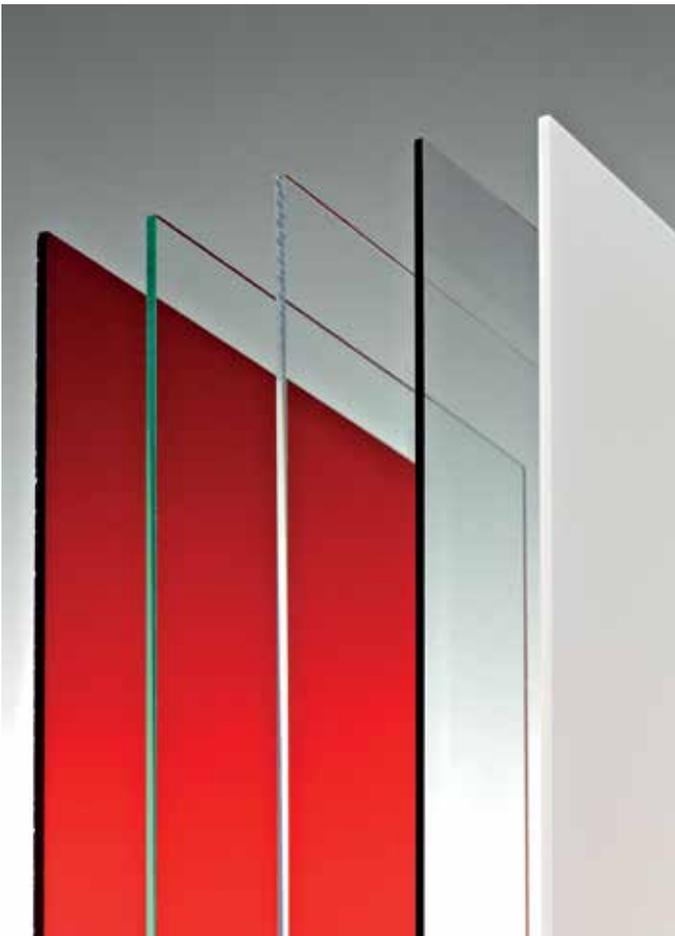


# Product Guide

# POLYCASA XT

## POLYCASA® XT IS OUR MOST WIDELY USED SHEET AND IS PERFECT FOR RETAIL, MAGAZINE SHELVING AND LIGHTING CONTROLLERS.

With sparkling clarity and the ability to be formed into shapes that blend into a store layout, you hardly notice it: the material does its job without distracting from the products being displayed. And when used in the sign industry, XT provides long lasting UV resistant signs — so your products get the promotion they deserve.



### PRODUCT IDENTIFICATION

XT is one of the trade names of **Polycasa** for extruded acrylic (polymethylmethacrylate PMMA) in the form of large dimensional sheets.

Offering solutions to both indoor and outdoor applications, **Polycasa XT** is available in clear and opal white standard, and in a wide range of colours and designs.

Sheets are produced and tested according to DIN EN ISO 7823-2.

### CHARACTERISTICS

- Good optical properties — brilliant transparency showing excellent colour.
- High-quality surfaces — very good weathering and ageing resistance.
- Can be used in contact with foodstuffs — meets all current European food control legislation.
- Does not contain any toxic materials or heavy metals which may cause environmental damage or health risks.
- Easy to recycle.
- High impact grades **Polycasa XT610**, **XT620** and **XT630** have outstanding mechanical properties and excellent impact strength.

### APPLICATIONS

- Construction components: light domes, partition walls, glazing, roofing, caravan windows.
- Lighting: prismatic control lenses, opal diffusers.
- Engineering components: housings, machine covers.
- Advertising and decoration: letters, shop fittings, panels, Point Of Purchase displays.
- Other applications: containers, lettering templates, solariums UVT (UV-transmitting grade).

### PRODUCT RANGE

- Available with anti-reflex, opal and opaque features.
- Standard range of thickness is from 1.5 to 25 mm.
- Colours: clear, white, glossy black, brown, silicate green.
- Standard sheet dimensions are 3050 x 2050 mm (sheets of 2050 x 1250 mm are also available, subject to special conditions).
- Special products: **Polycasa XT Soft Tone**, **Polycasa XT High Impact** and **Polycasa XT UV transmitting**.
- Special thicknesses, colours and patterns can be produced to order, subject to conditions.

Please contact your local customer service centre for a complete product overview. For details see back of brochure.

## TECHNICAL INFORMATION

GENERAL						
Property	Method	Units	XT	XT 630	XT 620	XT 610
Density	ISO 1183	g/cm <sup>3</sup>	1.19	1.17	1.16	1.15
Water absorption 24h/23°C-50x50x4mm <sup>3</sup>	DIN EN ISO 62 Method 1	%	0.2	0.25	0.3	0.3
Ball indentation hardness	ISO 2039-1	MPa	235	155	135	100
Forming temperature - air pressure		°C	140-160	130-150	130-150	130-150
Forming temperature - vacuum		°C	160-190	140-170	140-170	140-170
Moulding shrinkage		%	0.5-0.8	0.6-0.9	0.6-0.9	0.6-0.9
MECHANICAL						
Property	Method	Units	XT	XT 630	XT 620	XT 610
Tensile strength	ISO 527-2	MPa	70	55	50	40
Elongation at break	ISO 527-2	%	4	15	25	35
Tensile modulus	ISO 527-2	MPa	3200	2400	2100	1800
Flexural strength	ISO 178	MPa	115	90	85	65
Flexural modulus	ISO 178	MPa	3300	2400	2100	1800
Impact strength - Charpy unnotched	ISO 179-1	KJ/m <sup>2</sup>	17	25	35	60
Impact strength - Charpy notched	ISO 179-1	KJ/m <sup>2</sup>	2	3	4	5
THERMAL						
Property	Method	Units	XT	XT 630	XT 620	XT 610
Vicat temperature (B 50)*	ISO 306	°C	105	104	102	98
Specific heat capacity	ISO 11357-4	J/gK	1.47	1.5	1.5	1.5
Linear thermal expansion	DIN 53752	K <sup>-1</sup> *x10 <sup>-5</sup>	7	9	10	11
Thermal conductivity	DIN 52612	W/mK	0.18	0.18	0.18	0.18
Service temperature continuous use		°C	70	65	65	65
Max. temperature short term use		°C	90	85	80	75
Degradation temperature		°C	>280	>280	>280	>280
OPTICAL						
Property	Method	Units	XT	XT 630	XT 620	XT 610
Light transmission (3mm)	DIN 5036-3/ EN ISO 13468-2	%	92	91	91	90
Refractive index	ISO 489	n <sub>D20</sub>	1.492	1.492	1.492	1.492
ELECTRICAL						
Property	Method	Units	XT	XT 630	XT 620	XT 610
Surface resistivity	IEC 60093	Ω	3x10 <sup>15</sup> - 3x10 <sup>16</sup>	-	-	-
Volume resistivity	IEC 60093	Ω x m	1x10 <sup>13</sup> - 5x10 <sup>13</sup>	-	-	-
Electrical strength	IEC 60243-1	KV/mm	10	-	-	-
Dielectric strength	IEC 60243-1	kV/mm	30	30	30	30
Dielectrical dissipation factor 50 Hz	DIN 53483-2		0.06	-	-	-
Dielectrical dissipation factor 1 KHz	DIN 53483-2		0.04	-	-	-
Dielectrical dissipation factor 1 MHz	DIN 53483-2		0.02	0.03	0.03	0.03
Relative permittivity 50 Hz	DIN 53483-2		2.7	-	-	-
Relative permittivity 1 KHz	DIN 53483-2		3.1	-	-	-
Relative permittivity 1 MHz	DIN 53483-2		2.7	2.9	2.9	2.9

\*Pre treatment 16h at 80°C

Note: The technical data of our products are typical ones; the actually measured values are subject to production variations.

For further information on the wide range of Polycasa products please contact us as follows;

**UK and Ireland**

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**France, Italy, Greece and Cyprus**

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**Germany, Austria, Switzerland**

T: 00 49 61 31 63 11 82

**Spain and Portugal**

T: 00 34 93 565 12 30

**Central and Eastern Europe**

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**Benelux, Scandinavia and all other countries**

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Polycasa offers an extensive range of plastic sheets to distribution and industrial partners, with an industry leading selection of polymers, thicknesses, sizes, colours, patterns, and coatings.



**Brands from Polycasa:**



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