XT

Product Guide

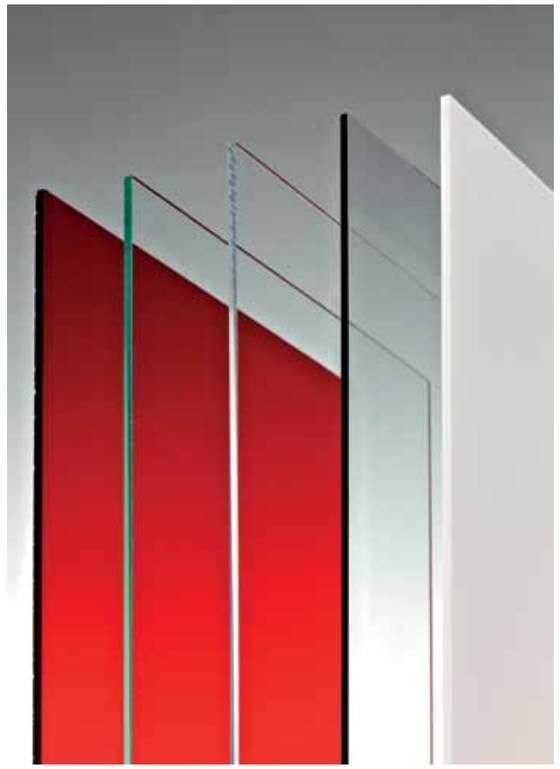
POLYCASA
Your home for plastic sheet

www.polycasa.com

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^3	1.19	1.17	1.16	1.15
Water Absorption 24h/23°C-50x50x4mm^3	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 vaccum		°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/m2	17	25	35	60
Impact strength Charpy notched	ISO 179-1	KJ/m2	2	3	4	5

THERMAL

Property	Method	Units	XT	XT 630	XT 620	XT 610
Vicat Temperature (B 50)*	ISO 306	oC	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-1*x10-5	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^{D}_{20}	1.492	1.492	1.492	1.492

ELECTRICAL

Property	Method	Units	XT	XT 630	XT 620	XT 610
Surface Resistivity	IEC 60093	Ω	$3x10^{15}$-$3x10^{16}$	-	-	-
Volume Resistivity	IEC 60093	Ω x m	$1x10^{13}$-$5x10^{13}$	-	-	-
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 permitivity 50 Hz	DIN 53483-2		2.7	-	-	-
Relative permitivity 1 KHz	DIN 53483-2		3.1	-	-	-
Relative permitivity 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
T: 00 44 28 67 74 11 11

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T: 00 33 385 73 68 19

Germany, Austria, Switzerland
T: 00 49 61 31 63 11 82

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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.

POLYCASA
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Brands from Polycasa:

CAST · CAST DESIGN · CAST OPTIMA · CAST DESIGN BLOCKS · CAST FLUOEDGE · CAST LUMINA · CAST VISION · CAST ANTI BACTERIA · CAST NEON · CAST ARGENTA · CAST BEAUTE

XT · XT HI · XT FLYSAFE · XT SOFTONE · AKRYLON · ACRYL · PS · HIPS · SAN · ABS

TPU · PC · SPC · PETG · LENTICULAR

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