

## POLYCASA XT PRISMATIC

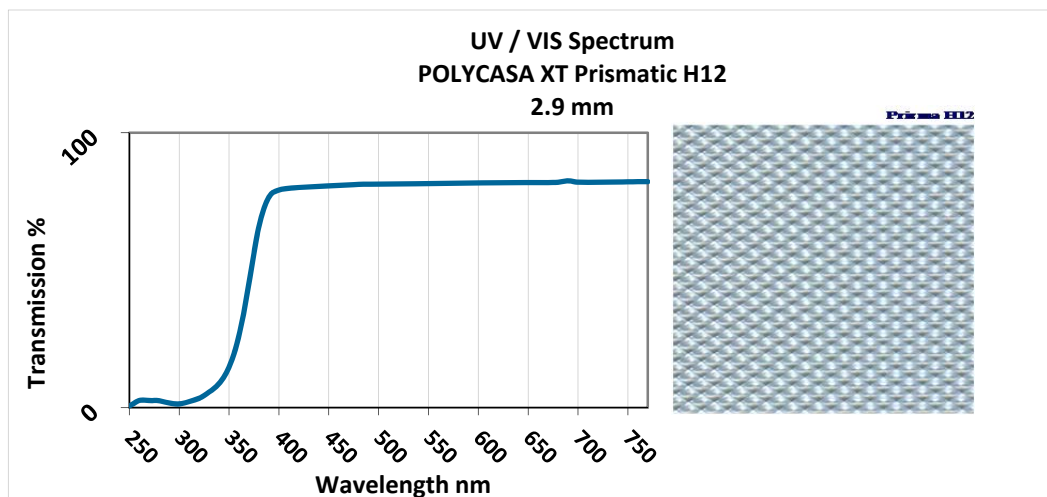
### 1. PRODUCT IDENTIFICATION

POLYCASA XT is the brand name for extruded Polymethyl methacrylate sheets from POLYCASA, standard or high impact. The POLYCASA XT and High Impact programme offers solutions to both indoor and outdoor applications. As a result of the extrusion process, POLYCASA Plastics can offer a variety of colours and designs.

POLYCASA XT Acrylic sheets are also offered in different hot embossing surface designs, as **POLYCASA XT PRISMATIC**.

### 2. CHARACTERISTICS

- Good transparency and visual light transmission > 80% (3mm)
- Easy fabricating and finishing
- Resistance to mechanical exposure
- Good recyclable



### 3. APPLICATIONS

#### Constructional components -

- Partition walls
- Door glazing
- Advertising fittings
- Advertising panels

#### Advertising and decoration materials

- Lighting
- Covers for lighting
- Coffered lighting
- Kitchen lighting

### 4. FABRICATION AND FINISHING TECHNIQUES

POLYCASA XT PRISMATIC sheets are as easy to handle as POLYCASA XT sheets and can be machined by sawing, drilling, milling, mechanical polishing, flame polishing, gluing, and laser cutting.

## POLYCASA XT PRISMATIC

### 5. TECHNICAL INFORMATION

#### ■ GENERAL

Properties	Method	Unit	POLYCASA XT	POLYCASA XT PRISMATIC
Density	ISO 1183	g/cm <sup>3</sup>	1,19	1,19
Water absorption 24h/23°C – 50x50x4mm <sup>3</sup>	DIN 53495 Method 1	%	0,2	0,2
Ball indentation hardness	ISO 2039-1	MPa	235	-
Forming temperature air pressure		°C	140-160	-
Forming temperature vacuum		°C	160-190	-
Moulding shrinkage		%	0,5-0,8	-

#### ■ OPTICAL

Properties	Method	Unit	POLYCASA XT	POLYCASA XT PRISMATIC
Light transmission (3mm)	DIN 5036-3	%	92	> 80
Refractive index	ISO 489	n <sub>D</sub>	1,492	1,492

#### ■ MECHANICAL

Properties	Method	Unit	POLYCASA XT	POLYCASA XT PRISMATIC (3mm tested*, different from standard requirements)
Tensile strength*	ISO 527-2	MPa	70	50
Elongation at break*	ISO 527-2	%	4	2
Tensile modulus*	ISO 527-2	MPa	3200	3020
Flexural strength*	ISO 178	MPa	115	71
Flexural modulus*	ISO 178	MPa	3300	3680
Impact strength Charpy unnotched*	ISO 179-1	kJ/m <sup>2</sup>	17	9,2
Impact strength Charpy notched	ISO 179-1	kJ/m <sup>2</sup>	2	-

#### ■ THERMAL

Properties	Method	Unit	POLYCASA XT	POLYCASA XT PRISMATIC
Vicat softening point (B 50) <sup>▲</sup>	ISO 306	°C	105	105
Specific heat capacity	IEC 1006	J/gK	1,47	1,47
Linear thermal expansion	DIN 53752	K <sup>-1</sup> *x10 <sup>-5</sup>	7	7
Thermal conductivity	DIN 52612	W/mK	0,18	0,18
Service temperature continuous use		°C	70	70
Max. temperature short term use		°C	90	90
Degradation temperature		°C	>280	>280

<sup>▲</sup>Pre-drying 16h at 80°C

#### NOTE:

Our technical recommendations are without legal obligation. The information given in this brochure is based on our knowledge and experience to date. It does not release the user from the obligation of carrying out their own tests and trials, in view of the many factors that may affect processing and application; neither do they imply any legally binding assurance of certain properties or of suitability for a specific purpose. It is the responsibility of those to whom we supply our products to ensure that any proprietary rights and existing laws and legislation are observed. Technical data of our products are typical ones; the actually measured values are subject to production variations.