

## PRODUCT GUIDE

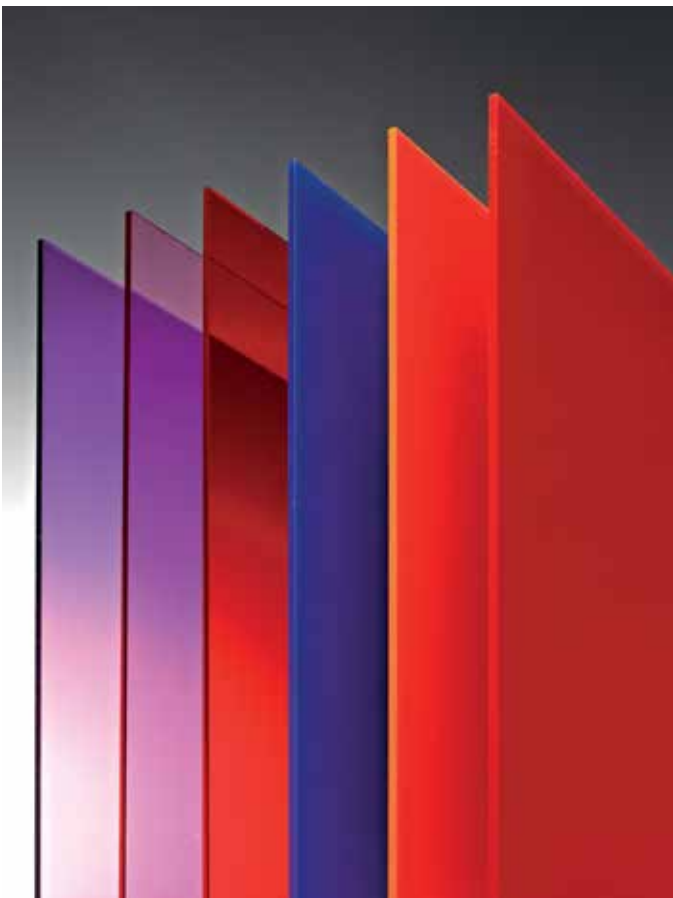
Sparkling clarity and easily formed into shapes.



## AKRYLON 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, Polycasa® Akrylon XT provides long lasting UV resistant signs — so your products get the promotion they deserve.



### PRODUCT IDENTIFICATION

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

The material is thermoplastic and suitable for forming, bending or direct use in the form of cut-to-size panels.

### CHARACTERISTICS

- Good optical properties — brilliant transparency showing excellent colour.
- High-quality surfaces — very good weathering and ageing resistance.
- High surface stability/resistance — backed up with a ten year guarantee.
- Can be used in contact with foodstuffs.
- Good recyclability.

### APPLICATIONS

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

### PRODUCT RANGE

- A palette of colours is available in opaque, opal, transparent and translucent.
- Standard range of thickness is from 1.8 to 15 mm.
- Special product: Akrylon XT UV transmitting.
- Special thicknesses, colours 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         | Unit              | AKRYLON XT                             |
| Density                                         | EN ISO 1183    | g/cm <sup>3</sup> | 1.19                                   |
| OPTICAL                                         |                |                   |                                        |
| Property                                        | Method         | Unit              | AKRYLON XT                             |
| Light transmission (3mm)                        | EN ISO 13468-1 | %                 | 93                                     |
| Refractive index                                | EN ISO 489     | nD                | 1.492                                  |
| Haze (AKRYLON XT clear)                         | ISO 14782      | %                 | 0.6                                    |
| MECHANICAL                                      |                |                   |                                        |
| Property                                        | Method         | Unit              | AKRYLON XT                             |
| Tensile strength at break                       | EN ISO 527-2   | MPa               | 70                                     |
| Elongation at break                             | EN ISO 527-2   | %                 | 4                                      |
| Tensile modulus                                 | EN ISO 527-2   | MPa               | 3200                                   |
| Flexural strength                               | EN ISO 178     | MPa               | 115                                    |
| Ball indentation hardness                       | EN ISO 2039-1  | N/mm <sup>2</sup> | 175                                    |
| Impact strength - Charpy unnotched              | EN ISO 179     | kJ/m <sup>2</sup> | 17                                     |
| Impact strength - Charpy notched                | EN ISO 179     | kJ/m <sup>2</sup> | 2                                      |
| THERMAL                                         |                |                   |                                        |
| Property                                        | Method         | Unit              | AKRYLON XT                             |
| Vicat softening temperature (B 50)              | EN ISO 306     | °C                | 105                                    |
| Temperature of deflection underload (A 1,8 MPa) | EN ISO 75      | °C                | 95                                     |
| Coefficient of linear expansion                 | DIN 53752      | K <sup>-1</sup>   | 70x10 <sup>-6</sup>                    |
| Degradation temperature                         |                | °C                | >280                                   |
| Combustibility grade                            | EN 13501-1     |                   | E                                      |
| ELECTRICAL                                      |                |                   |                                        |
| Property                                        | Method         | Unit              | AKRYLON XT                             |
| Relative permittivity (50Hz)                    | DIN 53483-2    |                   | 2.7                                    |
| Relative permittivity (1 kHz)                   | DIN 53483-2    |                   | 3.1                                    |
| Relative permittivity (1 MHz)                   | DIN 53483-2    |                   | 2.7                                    |
| Dielectric strength                             | DIN 53481      | kVmm              | 30                                     |
| Electrical strength                             | IEC 60243-1    | kVmm              | 10                                     |
| Surface resistivity                             | IEC 60093      | Ω                 | 3x10 <sup>15</sup> -3x10 <sup>16</sup> |
| Volume resistivity                              | IEC 60093      | Ωxm               | 1x10 <sup>13</sup> -5x10 <sup>13</sup> |





**POLYCASA**

YOUR HOME  
FOR PLASTICS  
AND COMPOSITES

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