

TECHNICAL DATA SHEET

1. PRODUCT IDENTIFICATION

CRYLUX® is the brand name for cast Polymethyl methacrylate sheets from POLYCASA.

The composition of the final product is 90-95% PMMA + additives (stabilisers, plasticizers, dyes and pigments, release agents).

CRYLUX® possibilities, characteristics and extraordinary range of colours cover all needs in construction, industry, decoration, lighting & publicity.

CRYLUX® sheets are produced and tested according to UNE EN ISO 7823-1.

2. CHARACTERISTICS

CRYLUX® most outstanding properties are its optical transparency (93% light transmission for colourless sheets), its high impact resistance and lightness compared to glass.

CRYLUX® is resistant to UV rays, shows good thermal stability, low water absorption and good chemical resistance. It has the best abrasion resistance in our thermoplastic's product range.

CRYLUX® sheets are easy to handle and most fabricating and moulding techniques are applicable to it, allowing attractive designs.

3. APPLICATIONS

■ Construction

- Skylights
- Vaults
- Glasswork
- Partition
- Doors
- Handrails
- Window sills
- Diffusing skylights
- Enclosures

■ Industry

- Signs / Publicity
- Security
- Furniture
- Sanitary furnishing
- Gift articles
- Industrial pieces
- Solariums
- Nautical
- Projection screens

4. FABRICATION AND FINISHING TECHNIQUES

CRYLUX® sheets are easy to handle.

Sawing, drilling, gluing, printing, milling, mechanical polishing, vacuum forming, hot bending do not offer any problems to the CRYLUX® range.

More detailed information on these items can be found in our "USER GUIDE".

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5. TECHNICAL DATA

GENERAL				
Property		Method	Units	CRYLUX®
Density		ISO 1183	g/cm³	1.19
Water absorption		ISO 62, Method A	%	0.2
Rockwell Hardness		ISO 2039-2	M scale	100
		ISO 2039-2	M scale	105
MECHANICAL				
Property		Method	Units	CRYLUX®
Tensile Strength		ISO 527	MPa	75
Elongation		ISO 527	%	6
Tensile Modulus		ISO 527	MPa	3400
Flexural Strength		ISO 178	MPa	120
Flexural Modulus		ISO 178	MPa	3200
Charpy (unnotched)		ISO 179	kJ/m²	17
Charpy (notched)		ISO 179	kJ/m²	2
THERMAL				
Property		Method	Units	CRYLUX®
Vicat Temp. (VST/B 50)		ISO 306	°C	110
Specific Heat Capacity		ISO 3146-C-60°C	J/g.K	2.16
Linear thermal expansion		ISO 11359-2	mm/m°C	0.07
Thermal conductivity		DIN 52612	W/m.K	0.19
Max. service temperature continuous use			°C	80
Max service temperature short term use			°C	90
Degradation temperature			°C	>280
OPTICAL				
Property		Method	Units	CRYLUX®
Light transmission)		EN 13468-2	%	92
Refractive index		ISO 489	n ^D ₂₀	1.492
ELECTRICAL				
Property		Method	Units	CRYLUX®
Surface resistivity		IEC 60093	Ω	10 ¹⁴
Volume resistivity		IEC 60093	Ω x m	10 ¹⁵
Electrical strength		IEC 60243-1	kV/mm	10
Dielectric strength		DIN EN 60243-1	kV/mm	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
Relative permittivity 50 Hz		DIN 53483-2		2.7
Relative permittivity 1 KHz		DIN 53483-2		3.1
Relative permittivity 1MHz		DIN 53483-2		2.7

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

TECHNICAL DATA SHEET**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.