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-60ºC	J/g.K	2.16
Linear thermal expansion	ISO 11359-2	mm/mºC	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.

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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.