CRYLUX ® NIGHT & DAY

1. PRODUCT IDENTIFICATION

CRYLUX™ 2902MAT is specially designed for application in lighting industry.

Its formula has been developed to have different shade when lighted.

2. CHARACTERISTICS

CRYLUX™ 2902MAT is a special translucent colour which looks black without lighting and white when it is back lighted. It is UV protected to assure a perfect performance in outdoor applications avoiding colour deterioration.

CRYLUX™ 2902MAT has a matt surface in one side to improve light diffusion and avoid shadows when lighted with fluorescent tubes.

As it is a dark colour and absorbs light, it is recommended to use more powerful lighting sources.

3. APPLICATIONS

- Signs
- POP

4. FABRICATING AND FINISHING TECHNIQUES

Due to their mechanical properties, it is as easy to manipulate as standard material.

CRYLUX™ 2902MAT can be sawed, drilled, screen-printed, grinding, and polished. It can also be thermoformed and hot bended without problems.

To avoid damage during transport and handling, they are supplied protected with PE film on both surfaces. Upper surface is identified with our CRYLUX™ logo.

More detailed information on CRYLUX™ can be found in the "USER GUIDE", available on request.

5. TECHNICAL INFORMATION

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	Scale M	100

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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		%	92
Refractive index	ISO 489	nD20	1.492
ELECTRICAL			
Property	**Method**	**Units**	**CRYLUX™**
Surface resistivity	IEC 60093	□	1014
Volume resistivity	IEC 60093	□ x m	1015
Electrical strength	IEC 60243-1	kV/mm	10
Dielectrical 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: The data provided in this table are typical ones; the actually measured values are subjected to production variation.

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- Chemical resistance

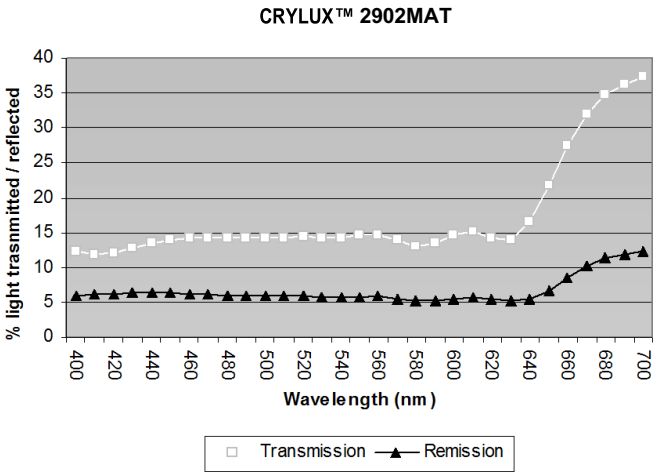
CRYLUX™ sheets are resistant -at room temperature- to saturated hydrocarbons, mineral oils and free-aromatic fuels, fats and vegetable and animal oils, water, salt solutions, and diluted acids and bases.

Aromatic hydrocarbons and chlorinated solvents, esters, ethers and ketones attack CRYLUX™.

6. LIGHT PERFORMANCE

Light transmission in visible area is 17%. The following plot shows the color differences measured in remission (no lighted sign) and transmission (lighted sign).

CRYLUX™ 2902MAT allows getting visible signs during the day without electrical consumption (dark sign, with contrast) and also visible at night (lighted sign, clear and contrasted appearance with the dark of the night)



The information given in this leaflet is based on our knowledge and experience to date. It does not release the user from the obligation of carrying out his 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.