

## PRODUCT GUIDE

CAST ACRYLIC SHEET MADE OF 100 % RECYCLED MMA







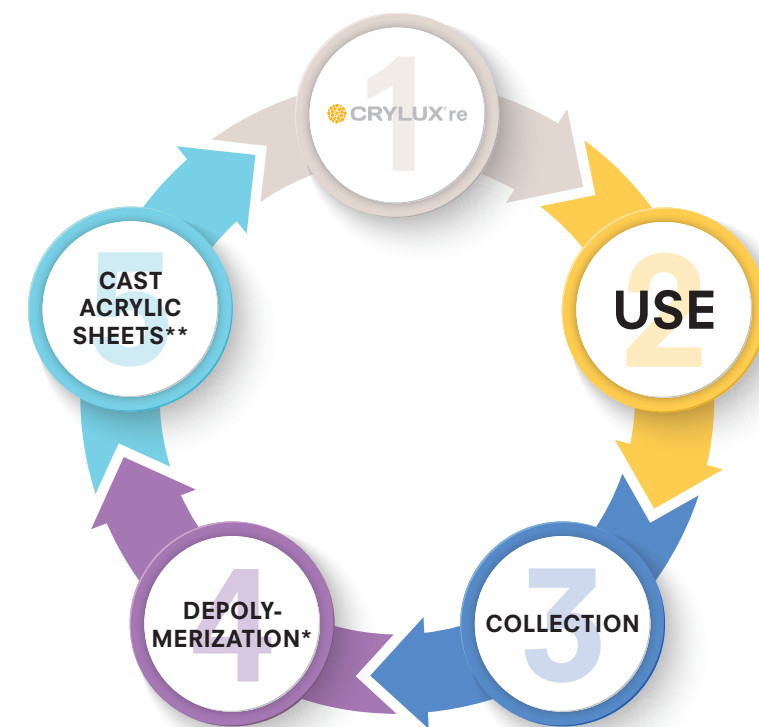
## CRYLUX<sup>®</sup>re

**CRYLUX<sup>®</sup>re** is an acrylic sheet material which is made using **100% recycled** methyl methacrylate (rMMA), obtained from PMMA scraps and waste. The rMMA is gained from depolymerisation of acrylic sheets and liquid waste coming from our own production by using a cracking and distillation process which recovers MMA.

A thermal treatment allows polymer chain scission into monomer molecules. In a later step, a high accurate distillation process separates MMA molecules, achieving a high purity standard. **The recycled material can be reused (over and over again)**, which not only **saves raw materials**, but also **prevents waste**. Moreover, the described process takes place in Europe, close to our production plants which additionally minimizes the carbon footprint due to the short transport ways.

This process is aligned with Circular Economy fundamentals obtaining raw material from waste products.

With using **CRYLUX<sup>®</sup>re** you can help to close the loop!



\* **Depolymerization** (Cracking and Distillation – production of rMMA, external waste management)

\*\* Production of **cast acrylic sheets** (Polymerization)

# CRYLUX<sup>®</sup>re

## MAKE YOUR APPLICATION SUSTAINABLE

Our production site for CRYLUX<sup>®</sup>re in Montcada, Spain, is granted with environmental permit and waste handling is managed according to European Directives. We apply available technology and best practice in our production process in order to minimize environmental impact. Environmental actions taken in the last 10 years have reduced the usage of gas by 27%, electricity by 40% and water consumption by 70%. These savings result in a 37% reduction in CO<sup>2</sup> emissions per acrylic ton produced.

When the lifetime of the product and the warranty of 10 years are taken into consideration, CRYLUX<sup>®</sup>re is truly beneficial for applications where the sustainability of a product is essential.

CRYLUX<sup>®</sup>re comes not only in clear transparent but also in opal white, dense white and black. Other colours and finishes are available upon request, including mat surface finishes as well as with increased chemical resistance (Beauté).

CRYLUX<sup>®</sup>re, made of recycled acrylic, is the perfect choice for a wide range of applications due to its high optical transparency, durability and UV stability. Whether you are looking for a new corporate signage, a high quality POS/POP display, a luxury shop fitting or even individual pieces of furniture and art works – CRYLUX<sup>®</sup>re will maintain the same properties as material produced with virgin acrylics.

## CRYLUX<sup>®</sup>re – Colours

Clear 1000

FLS  
LT 93 %

Opal 4000

OPAL  
LT 41 %

White 3014

OPAQUE  
LT 5 %

Black 3945

OPAQUE  
LT <1 %

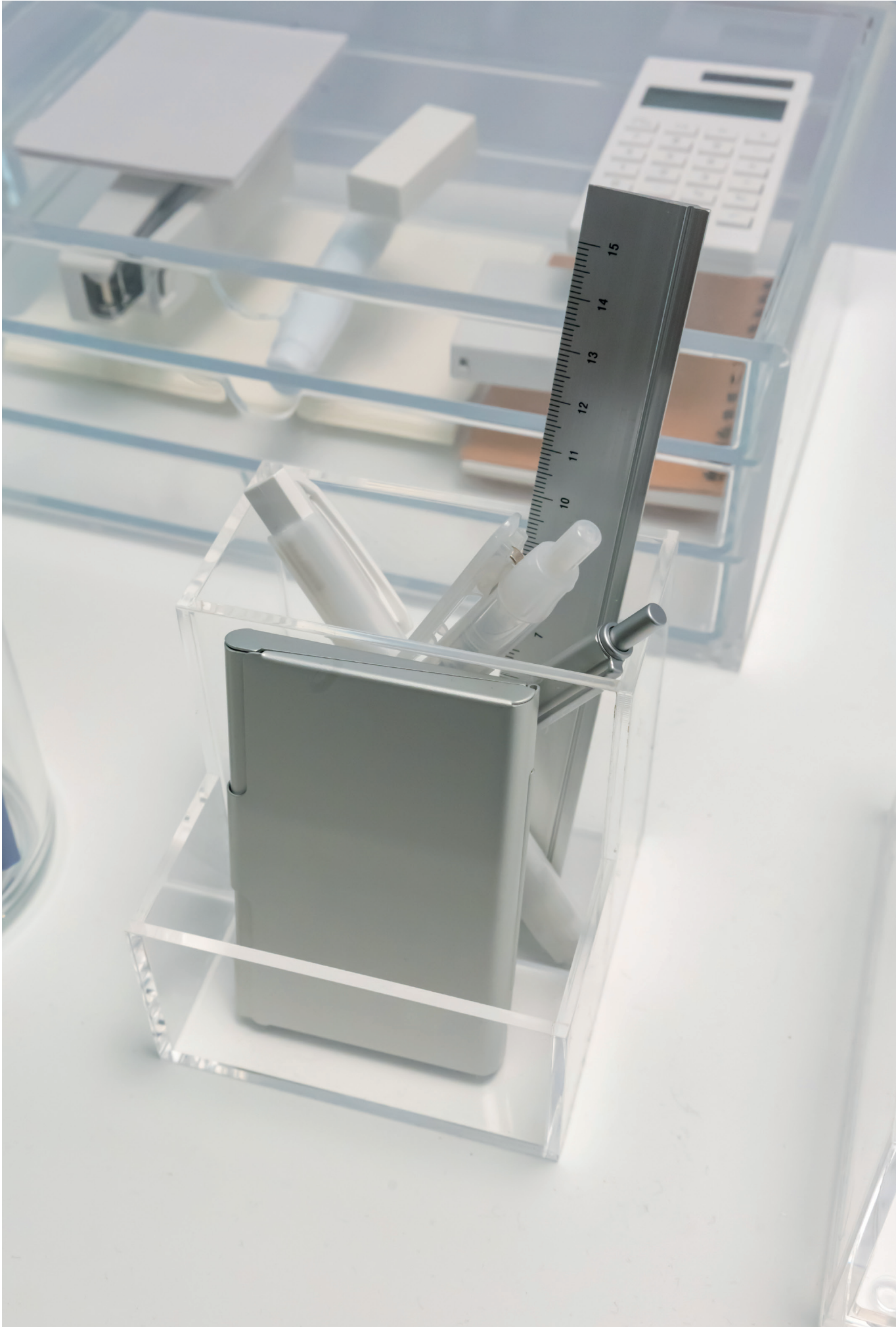
## CRYLUX<sup>®</sup>re – Delivery program

COLOUR		VARIANT	LT	SIZE (mm)	THICKNESS (mm)					
					3	4	5	6	8	10
	Clear 1000	FLS	93%	3050 x 2030	•	•	•	•	•	•
	Opal 4000	OPAL	41%	3050 x 2030	•	•	•			
	White 3014	OPAQUE	5%	3050 x 2030	•	•	•			
	Black 3945	OPAQUE	<1%	3050 x 2030	•	•	•			

LT = Light transmission (Figures apply to 3 mm sheet thickness only.)  
FLS = double-sided glossy, OPAQUE = non-transparent, OPAL = semi-transparent  
The colours printed may vary from the original. To ensure exact colour matching please ask for a colour sample. Subject to technical changes.







# CRYLUX<sup>®</sup>re

## TECHNICAL DATA SHEET

GENERAL			
Property	Method	Unit	CRYLUX <sup>®</sup> re
Density	ISO 1183-1	g/cm <sup>3</sup>	1.19
Water absorption 24h/23°C	ISO 62 Method 1	%	0.2
Rockwell Hardness	ISO 2039-2	M-Scale	105
MECHANICAL			
Property	Method	Unit	CRYLUX <sup>®</sup> re
Tensile strength	ISO 527-2	MPa	75
Elongation at break	ISO 527-2	%	6
Tensile modulus	ISO 527-2	MPa	3300
Flexural strength	ISO 178	MPa	125
Flexural modulus	ISO 178	MPa	3000
Impact strength Charpy unnotched	ISO 179-1	kJ/m <sup>2</sup>	18
Impact strength Charpy notched	ISO 179-1	kJ/m <sup>2</sup>	2
OPTICAL			
Property	Method	Unit	CRYLUX <sup>®</sup> re
Light transmission	ISO 13468-1	%	93
Refractive index	ISO 489	n <sup>D</sup> <sub>20</sub>	1.492
THERMAL			
Property	Method	Unit	CRYLUX <sup>®</sup> re
Vicat temperature (B 50)*	ISO 306	°C	110
Heat deflection temperature (A)	ISO 75-2	°C	105
Specific heat capacity	ISO 3146-C-60°C	J/gK	2.16
Linear thermal expansion α	ISO 11359-2	mm/m °C	0.07
Thermal conductivity	DIN 52612	W/mK	0.19
Service temperature continuous use		°C	80
Max. temperature short term use		°C	90
Degradation temperature		°C	>280
Sheet forming temperature range		°C	140 – 190
ELECTRICAL			
Property	Method	Unit	CRYLUX <sup>®</sup> re
Surface resistivity	IEC 60093	Ω	>10 <sup>14</sup>
Volume resistivity	IEC 60093	Ω x m	>10 <sup>15</sup>
Electrical strength	IEC 60243-1	kV/mm	10
Dielectric strength	IEC 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 1 MHz	DIN 53483-2		2.7

\* = Pre-treatment: 16 h at 80°C  
Note: These technical data of our products are typical ones; the actually measured values are subject to production variations.



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