

DECLARATION OF CHARACTERISTIC PRODUCT PROPERTIES**Product properties – Application - Product safety**

BRAND NAME	CRYLON[®] - CRYLON[®] High Impact – CRYLON[®] Soft Tone
DESCRIPTION	Extruded, flat acrylic sheets - Transparent, weather-resistant, robust material made from PMMA resin, clear or colored, high impact modified, as well available with coextruded functional surfaces e.g. matting
APPLICATION	Constructions components: Flat sheets, displays, light domes, glazing, advertising, decoration, lighting covers, containers, sound barrier wall elements, sunbed covers, food contact, skin contact
MANUFACTURER	POLYCASA, 3AComposites, Schweiter Technologies Group
TEST SYSTEMS	<p>Manufacturing and inspection, quality control and quality assurance according to the requirements of product standard DIN EN ISO 7823-2 and an implemented and certified management system in compliance with ISO 9001:2015.</p> <p>Testing and statements for safe application conform to various national and European standards:</p> <ul style="list-style-type: none">• Fire behavior, toxicity of fire effluents• Health• Environment• Life period - Recycling• Thermal insulation and sound protection• Food contact• Skin contact

REMARK: The product standards of acrylic compounds or sheet manufacturing (extruded or cast) are not harmonized. CE marking is not possible.

The particulars given herein are based on our actual knowledge and experience. They do not release the user from obligation of carrying out own tests and trials due to the abundant factors which may affect processing and application of our products, and they do neither imply any legally binding assurance of certain properties or suitability for specific purposes. It is the user's responsibility to ensure that any protective rights and existing laws and regulations are observed.



Polycasa N.V.
Van Doornelaan 2A | 2440 Geel, Belgium
Phone + 32 14 576 711
www.3AComposites.com
A member of 3A Composites

DECLARATION OF CHARACTERISTIC PRODUCT PROPERTIES
Product properties – Application - Product safety

PRODUCT PROPERTIES	PRODUCT STANDARD DIN EN ISO 7823-2	PRODUCT CHARACTERISTIC CRYLON® STANDARD SHEET THICKNESS 4mm
Vicat softening temperature	DIN EN ISO 306, B50	≥ 105
Temperature of deflection, under load, HDT-A/f	DIN EN ISO 75-2	≥ 100
Tensile strength	DIN EN ISO 527-2	≥ 70 MPa
Elongation at break	DIN EN ISO 527-2	≥ 4%
Modulus of elasticity	DIN EN ISO 527-2	≥ 3000 MPa
Bending strength	DIN EN ISO 178	≥ 100 MPa
Flexural modulus	DIN EN ISO 178	≥ 3100 MPa
Impact strength Charpy unnotched	DIN EN ISO 179/f	≥ 15 kJ/m ²
Water absorption	DIN EN ISO 62, method 1	0,2 %
Light transmittance clear	DIN EN ISO 13468-2	≥ 90 % (1,5mm – 25mm)

***Accredited test institutes

***KUZ LEIPZIG
***ATLAS AMETEK
***IKATES

REMARK: The product standards of acrylic compounds or sheet manufacturing (extruded or cast) are not harmonized. CE marking is not possible.

The particulars given herein are based on our actual knowledge and experience. They do not release the user from obligation of carrying out own tests and trials due to the abundant factors which may affect processing and application of our products, and they do neither imply any legally binding assurance of certain properties or suitability for specific purposes. It is the user's responsibility to ensure that any protective rights and existing laws and regulations are observed.



Polycasa N.V.
Van Doornelaan 2A | 2440 Geel, Belgium
Phone + 32 14 576 711
www.3AComposites.com
A member of 3A Composites

DECLARATION OF CHARACTERISTIC PRODUCT PROPERTIES
Product properties – Application - Product safety
FIRE BEHAVIOR
FLAMMABILITY

Clear	2mm - 25mm	EN 13501-1, EN 11925-2	Flammable, classification E,
Opal	2mm - 6mm		No burning droplets
Glossy Black	3mm – 10mm		

UL LISTING

CRYLON® All colors	UL 94	UL –QMFZ2.E251546 Rating HB
--------------------	-------	--------------------------------

TOXICOLOGICAL FIRE EFFLUENTS

DIN 53436 / 400°C	Non toxic, decomposition products are physiologically non - hazardous
-------------------	---

ENVIRONMENTAL RISKS of decompositions products

Product handling information sheet SDS / PHIS	Safe when recommended processing and application will be considered
--	---

***Accredited test institutes

***MPA NRW – Materialprüfamt Nordrhein-Westfalen

***Underwriters Laboratories

***EPA, Energie – und Prozesstechnik

REMARK: The product standards of acrylic compounds or sheet manufacturing (extruded or cast) are not harmonized. CE marking is not possible.

The particulars given herein are based on our actual knowledge and experience. They do not release the user from obligation of carrying out own tests and trials due to the abundant factors which may affect processing and application of our products, and they do neither imply any legally binding assurance of certain properties or suitability for specific purposes. It is the user's responsibility to ensure that any protective rights and existing laws and regulations are observed.



Polycasa N.V.
Van Doornelaan 2A | 2440 Geel, Belgium
Phone + 32 14 576 711
www.3AComposites.com
A member of 3A Composites

DECLARATION OF CHARACTERISTIC PRODUCT PROPERTIES
Product properties – Application - Product safety
PRODUCT SAFETY – (Hygiene, health and environmental protection)

FOOD CONTACT***	EU VO 1935/2004/EG - GMP EU VO 10/2011 PIM = Plastic Implementation Measure– EN 1186	Any food contact is allowed (CoC)
BIOCOMPATIBILITY**	DIN EN ISO 10993-5 In vitro cytotoxicity	not cytotoxic – suitable for skin contact – biocompatible (CoC)
- Skin contact - Medical application		
REACH / SVHC	REACH ordinance 1907/2006 ECHA candidate list (SVHC)	Conform to the requirements (CoC)
Substances of Very High Concern		
Prohibited or restricted ingredients: e.g.	Several European directives, ordinances,	In compliance, (see CoC - conformity declarations)
phthalates/plasticizers, PAK, heavy metals, flame retardant additives, VOC.....		

REMARK: The product standards of acrylic compounds or sheet manufacturing (extruded or cast) are not harmonized. CE marking is not possible.

The particulars given herein are based on our actual knowledge and experience. They do not release the user from obligation of carrying out own tests and trials due to the abundant factors which may affect processing and application of our products, and they do neither imply any legally binding assurance of certain properties or suitability for specific purposes. It is the user's responsibility to ensure that any protective rights and existing laws and regulations are observed.



Polycasa N.V.
 Van Doornelaan 2A | 2440 Geel, Belgium
 Phone + 32 14 576 711
 www.3AComposites.com
 A member of 3A Composites

DECLARATION OF CHARACTERISTIC PRODUCT PROPERTIES

Product properties – Application - Product safety

ENERGY SAVINGS – HEAT PROTECTION

TOTAL SOLAR ENERGY		Clear 2mm – 88%
TRANSMITTANCE***	EN 410	Clear 15mm – 82%
g- value		Opal 75% TR – 76%
HEAT LOSS FACTOR		2mm / 5,5 (W/m ² *K)
U-value	Calculated typical values	25mm / 3,4 (W/m ² *K)

*** test institutes

***Fraunhofer Institut für Grenzflächen-und Bioverfahrenstechnik, Stuttgart

***IKATES S.R.O. – Notified Body 1394

SOUND PROTECTION

	Values for orientation, source literature	3mm / 23dB 15mm / 29dB
SOUND ABSORBANCE	Measurements acc. to EN1793-2, Application as elements in soundbarrier walls***	≥15mm / 29dB 25mm / 31dB

***MFPA Leipzig, Notified Body 0800

REMARK: The product standards of acrylic compounds or sheet manufacturing (extruded or cast) are not harmonized. CE marking is not possible.

The particulars given herein are based on our actual knowledge and experience. They do not release the user from obligation of carrying out own tests and trials due to the abundant factors which may affect processing and application of our products, and they do neither imply any legally binding assurance of certain properties or suitability for specific purposes. It is the user's responsibility to ensure that any protective rights and existing laws and regulations are observed.



Polycasa N.V.
Van Doornelaan 2A | 2440 Geel, Belgium
Phone + 32 14 576 711
www.3AComposites.com
A member of 3A Composites

DECLARATION OF CHARACTERISTIC PRODUCT PROPERTIES

Product properties – Application - Product safety

SUSTAINABILITY – RECYCLING *(sustainable use of natural resources)*

LIFE PERIOD

PMMA material has good weathering stability to UVA radiation based on its special polymer structures. It could be used outdoor. But long term outdoor application will lead to polymer destruction as micro cracks and yellowing due to UVB radiation in sun light. Addition of UV- protection additives will essentially improve longevity with conservation of brilliance, color stability, transparency and strength of the PMMA sheets. The UV-protected CRYLON[®] sheets show no significant decrease in mechanical and optical properties or loss in brilliance after intensive sun exposure. On base of weathering results in accelerated weathering equipment and outdoor weathering*** in Florida and Arizona, Polycasa warrants minimum 10 years outdoor application for optical and mechanical behavior.

***ATLAS - AMETEK

RECYCLABILITY:

PMMA is a high-class thermoplastic raw material, which could be recycled into the process without any problems, provided that the varietal purity and cleanliness will be considered.

- **Product recycling:** recirculation for a comparable or another function
- **Material recycling** as regrind: return back in the production process
- **Energy recycling** as combustible material (calorific value ~ 7 kWh/kg)

PE- film used as surface protection is also suitable for material-specific recycling.

ENVIRONMENTAL PROFILE

STUDY OF ECO PROFILE - LCA	ISO 14040 / ISO 14044	DEKRA / CEFIC / PE
	PlasticsEurope Product Category	INTERNATIONAL
= LIFE CYCLE ASSESSMENT	rules Methode	statements
ENERGY MANAGEMENT SYSTEM	ISO 50001:2011	TÜV Rheinland: Certificate of compliance

REMARK: The product standards of acrylic compounds or sheet manufacturing (extruded or cast) are not harmonized. CE marking is not possible.

The particulars given herein are based on our actual knowledge and experience. They do not release the user from obligation of carrying out own tests and trials due to the abundant factors which may affect processing and application of our products, and they do neither imply any legally binding assurance of certain properties or suitability for specific purposes. It is the user's responsibility to ensure that any protective rights and existing laws and regulations are observed.



Polycasa N.V.
 Van Doornelaan 2A | 2440 Geel, Belgium
 Phone + 32 14 576 711
 www.3AComposites.com
 A member of 3A Composites