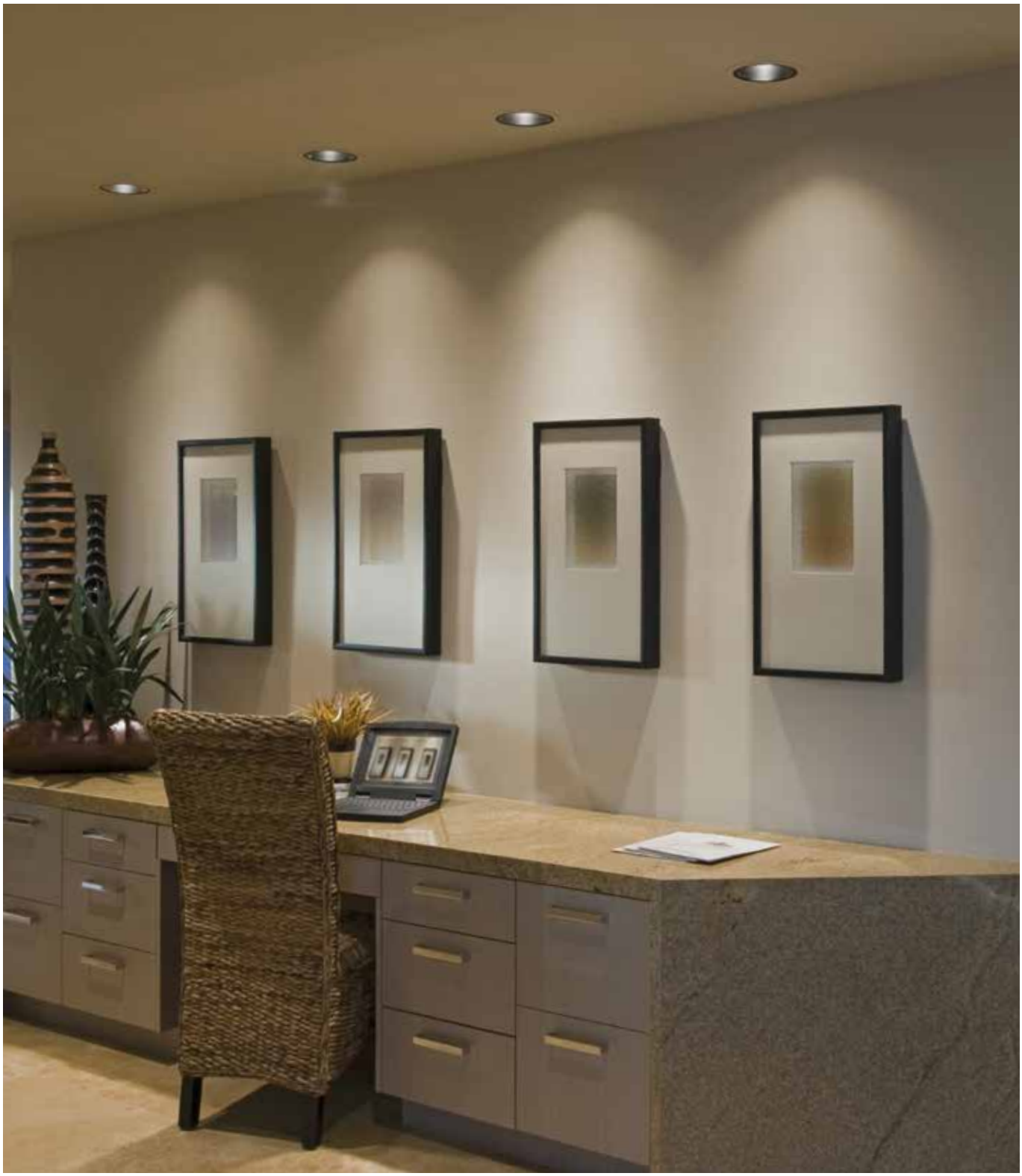
PS

PRODUCT GUIDE

Versatile, effective and attractive. Real value for money.



COMPOSITES

PS

POLYSTYRENE IS ONE OF THE MOST USEFUL SHEET MATERIALS. IT LOOKS GOOD WHILST GIVING TRUE VALUE FOR MONEY.

POLYCASA® PS can be easily cut to size, allowing for a wide range of finished picture-frames to be produced from standard stock sheet. If you need to produce a cheap but effective sign for a short campaign, this sheet material is the perfect choice.

And you can easily achieve the very latest style in sanitary ware by choosing one of the wide range of textured finishes. Whatever the application, POLYCASA® PS is the versatile material that delivers sparkling clarity, with light weight and good resistance to breakage.

PRODUCT IDENTIFICATION

POLYCASA® PS is the brand name for **Polycasa's** extruded Crystal Polystyrene sheets, offering solutions for many indoor applications.

As well as clear, anti-reflex and standard opal white, a variety of colours and designs are also available as a result of the extrusion process **Polycasa** can offer.

CHARACTERISTICS

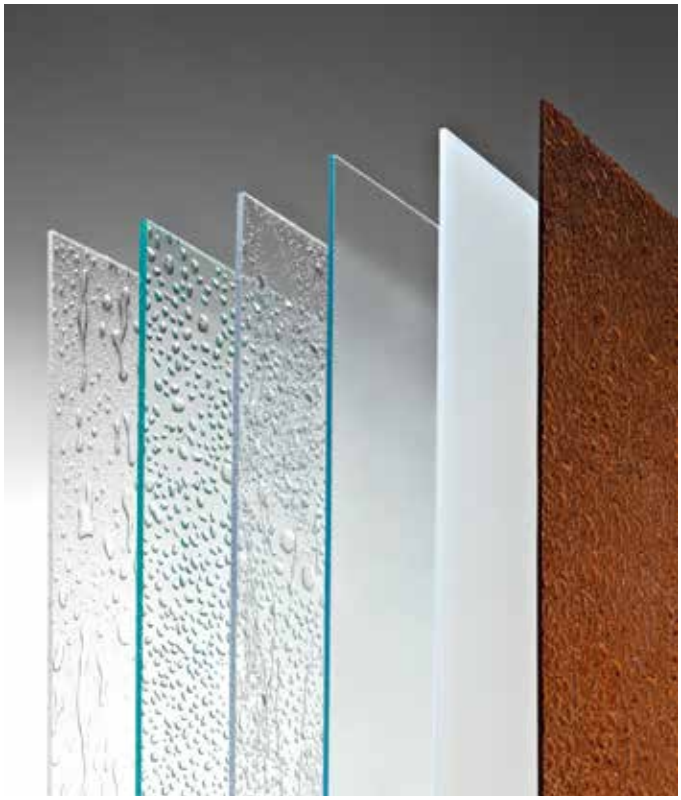
- Good optical properties and a brilliant surface.
- High light transmission (min 88% wavelength: 500 nm, thickness 3 mm).
- Low price.
- Low density (1.05).
- Good chemical resistance and high rigidity.
- UV-stabilised — remains colour constant for many years when used indoors. (On special request **POLYCASA® PS** sheets can be produced without UV-stabilisation. They then meet all current food contact legislation and can be used in contact with foodstuffs.)
- Possibility of corona treatment - process to increase surface tension. (The result after corona treatment is a surface that is unchanged to the naked eye, but in fact is much more receptive to inks, coatings, and adhesives.)

POLYCASA® PS sheets also combine the following excellent properties:

- Excellent transparency.
- Good surface hardness.
- Good recyclability.
- Low water absorption.

APPLICATIONS

- Picture frames.
- Shower cabin doors (flat and curved).
- Indoor glazing.



PRODUCT RANGE

- Available as a flat, patterned or prismatic sheet.
- The range of patterns is extensive (subject to special conditions).
- Colours: clear, with or without anti-reflex features, and opal.
- Standard range of thickness is from 0.85 to 4.75 mm. (A thickness of 5mm is also available subject to special conditions.)
- Special thicknesses, colours and patterns can be produced to order, subject to conditions.

Please contact your local customer service centre for a complete product overview. For details see back of brochure.

TECHNICAL INFORMATION

GENERAL			
Property	**Method**	**Unit**	**POLYCASA® PS**
Density	ISO 1183	g/cm^3	1.05
Rockwell hardness	ISO 2039-1	M scale	150
OPTICAL			
Property	**Method**	**Unit**	**POLYCASA® PS**
Light transmission	DIN 5036-3	%	89
Refractive index	ISO 489	$n^{D_{20}}$	1.59
MECHANICAL			
Property	**Method**	**Unit**	**POLYCASA® PS**
Flexural modulus	ISO 178	MPa	3450
Flexural strength	ISO 178	MPa	85
Tensile modulus	ISO 527-2	MPa	3400
Tensile strength	ISO 527-2	MPa	45
Elongation	ISO 527-2	%	3
THERMAL			
Property	**Method**	**Unit**	**POLYCASA® PS**
Vicat temperature (VST/B 50)	ISO 306	°C	101
Heat deflection temperature (A)	ISO 75-2	°C	86
Specific heat capacity	ASTM D-2766	J/gK	1.8
Coefficient of linear thermal expansion	DIN 53752	$K^{-1}x10^{-5}$	8
Thermal conductivity	DIN 52612	W/mK	0.16
Degradation temperature		°C	>280
Max. service temperature		°C	80
Sheet forming temperature range		°C	130-170
IMPACT STRENGTHS			
Property	**Method**	**Unit**	**POLYCASA® PS**
Charpy (notched)	ISO 179-1	KJ/m^2	-
Charpy (unnotched)	ISO 179-1	KJ/m^2	6
ELECTRICAL			
Property	**Method**	**Unit**	**POLYCASA® PS**
Volume resistivity	DIN 53482	Ω.cm	$>10^{14}$
Surface resistivity	DIN 53482	Ω	$>10^{14}$

Note: All mentioned data is based on extruded sheets in a thickness of 4mm.
The technical data of our products are typical ones; the actually measured values are subject to production variations.

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