

## Polycasa PS

Category : Polymer , Thermoplastic , Polystyrene (PS) , Polystyrene, Extrusion Grade

### Material Notes:

QUINN PS sheets have good optical properties and a brilliant surface. The QUINN PS range contains sheets that are easy to fabricate, to vacuum form, and show a high light transmission (min 88% wavelength: 500 nm, thickness 3 mm). Important benefits of QUINN PS sheets are their low price, low density (1.05), good chemical resistance and high rigidity. As a standard QUINN PS sheets are UV-stabilized and remain color constant for many years when used indoors. On special request QUINN PS sheets can be produced without UV-stabilization. They then meet all current food contact legislation and can be used in contact with foodstuffs. QUINN PS sheets also combine the following excellent properties: Excellent transparency, good surface hardness, good recyclability, and low water absorption. Picture frames Shower cabin doors (flat and curved) Indoor glazing Quinn Manufacturing Group rebranded its Plastics Division as Polycasa in 2013.

Order this product through the following link:

[http://www.lookpolymers.com/polymer\\_Polycasa-PS.php](http://www.lookpolymers.com/polymer_Polycasa-PS.php)

Physical Properties	Metric	English	Comments
Density	1.05 g/cc	0.0379 lb/in <sup>3</sup>	ISO 1183

Mechanical Properties	Metric	English	Comments
Tensile Strength at Break	45.0 MPa	6530 psi	ISO 527-2
Elongation at Break	3.0 %	3.0 %	ISO 527-2
Tensile Modulus	3.40 GPa	493 ksi	ISO 527-2
Flexural Strength	85.0 MPa	12300 psi	ISO 178
Flexural Modulus	3.45 GPa	500 ksi	ISO 178
Charpy Impact Unnotched	0.600 J/cm <sup>2</sup>	2.86 ft-lb/in <sup>2</sup>	ISO 179-1

Thermal Properties	Metric	English	Comments
CTE, linear	80.0 μm/m-°C	44.4 μin/in-°F	DIN 53752
	@Temperature 20.0 °C	@Temperature 68.0 °F	
Specific Heat Capacity	1.80 J/g-°C	0.430 BTU/lb-°F	ASTM D2766
Thermal Conductivity	0.160 W/m-K	1.11 BTU-in/hr-ft <sup>2</sup> -°F	DIN 52612
Maximum Service Temperature, Air	80.0 °C	176 °F	
Deflection Temperature at 1.8 MPa (264 psi)	86.0 °C	187 °F	ISO 75-2
Vicat Softening Point	101 °C	214 °F	ISO 306
Decomposition Temperature	>= 280 °C	>= 536 °F	

Thermal Properties	Metric	English	Comments
Optical Properties	Metric	English	Comments
Refractive Index	1.59	1.59	ISO 489
Transmission, Visible	89 %	89 %	DIN 5036-3

Electrical Properties	Metric	English	Comments
Volume Resistivity	$\geq 1.00 \times 10^{14}$ ohm-cm	$\geq 1.00 \times 10^{14}$ ohm-cm	DIN 53482
Surface Resistance	$\geq 1.00 \times 10^{14}$ ohm	$\geq 1.00 \times 10^{14}$ ohm	DIN 53482

Processing Properties	Metric	English	Comments
Processing Temperature	130 - 170 °C	266 - 338 °F	Sheet Forming

## Contact Songhan Plastic Technology Co.,Ltd.

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