

Raise up your innovation



Altuglas®

Altuglas® HT 121

for photovoltaic

ACRYLIC RESIN

**A clear solution for
photovoltaic module designers**
(Fresnel Lenses in CPV technology
or Front sheet panels)

*Give shape to your ideas
Create object of desire*



Altuglas® HT 121

for photovoltaic

ACRYLIC RESIN



Altuglas® HT 121, a Heat Resistant Acrylic Resin providing cost savings solutions to the photovoltaic industry

Altuglas® HT 121 acrylic resin is highly attractive to photovoltaic modules designers. Offering a unique balance of properties, Altuglas® HT 121 is the ideal candidate for the manufacture of **Fresnel lenses** used in the **Concentrated Photovoltaic Technology**. Such a technology leads to significant savings by reducing the amount of semi-conductor material.

A unique balance of properties for CPV modules:

> The highest Temperature Resistant PMMA grade available

Altuglas® HT 121 name was inspired by its excellent Vicat softening temperature of 121 °C. As a result, dimensional stability is retained at continuous temperature up to 100°C.

Thermal properties

	VICAT Softening Temperature (50N)	HDT 1.82 MPa
Altuglas® HT 121	ISO 306	ISO 75-2
	121 °C	110 °C
Altuglas® Standard grade	Max. 108 °C	Max. 100 °C

> Excellent light transmittance (> 92%).

For light transmission and low haze, Altuglas® HT 121 like other Altuglas® standard PMMA is clearly the best polymer.

Optical properties

	Refractive Index B	Light Transmittance	Haze
Altuglas® HT 121	ISO R-489	DIN 5036	DIN 5036
	1.49	92%	0.5%
Altuglas® Standard grade	1.49	92%	0.5%

> Exceptional weatherability and UV resistance

As all Altuglas® PMMA grades, Altuglas® HT 121 offers excellent UV resistance.

> Superior surface hardness and scratch resistance

Altuglas® HT 121 has a breakage resistance up to 10 times stronger than glass of same thickness. It has also a higher surface hardness and scratch resistance, markedly superior to standard Altuglas® grades.

> Easy processing (injection molding, extrusion, ...)

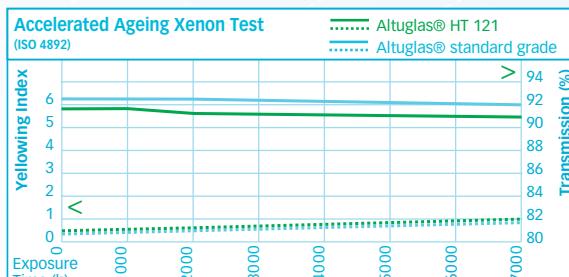
Altuglas® HT 121 can be processed with general equipment used for thermoplastics, both by injection or extrusion processes. Thanks to its weathering resistance Altuglas® HT 121 does not need any post molding protective varnish.

What's Next

Altuglas International continues to develop and expand its product portfolio through research and innovation. Our focus for today and tomorrow is to provide materials and products that will bring exceptional solar energy performance characteristics while lowering your cost per watt.

As an example, new high Temperature Resistant Acrylic Technology is considered one of the best non-glass solution for front sheet panels.

For any further enquiries on Altuglas® HT 121, kindly contact our development team who will be happy to assist you.



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