Altuglas®
Specialty Grades

In response to growing demand, Altuglas® International has developed a wide range of clear and colored specialty acrylic resins for more stringent applications.

Altuglas® **HT 121**

Highest heat and scratch resistance

Pure acrylic resin intended for both injection and extrusion exhibiting unique features:

> Highest Temperature Resistance of all PMMA grades available on the market (increases productivity by reducing cycle times) with a Vicat B50 of 121°C vs 108°C max in the regular range. Altuglas® **HT 121** can indeed sustain 100°C in a continuous use.

> Highest Scratch Resistance of all PMMA grades available on the market for a premium aesthetic retention.

> Incredible clarity with 92% in light transmission and 0.5% in haze.

> Outstanding weatherability and UV resistance (AMECA certification).

> Typical PMMA ease of colouring.

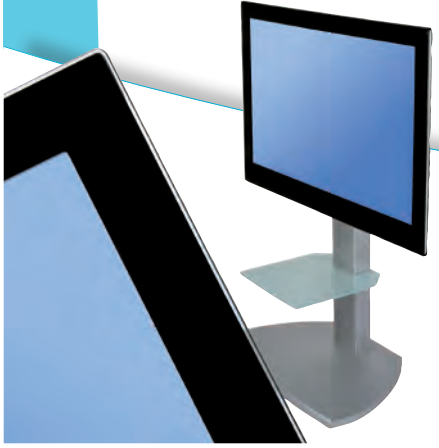
Altuglas® **HT 121** is typically used in sensitive tail light and cluster lens designs, household appliances and electronic device displays and any application with stringent combinations of heat/optics/hardness/UV ageing demands.

For applications with more stringent purity requirements (e.g. cluster lens), QCB quality material is also available. For visually clear applications requiring higher UV screening (e.g. automotive medallions), the UVP3 version of Altuglas® **HT 121** is suitable.

Altuglas® **V 022 E Optical Grades**

for applications with the most demanding brightness requirements

The Altuglas® **V 022 E** range is formulated to maximize light transmittance (>93%) at all wavelengths to optimize display brilliance.



Being pure acrylic resin, Altuglas® **V 022 E** grade is of course crystal clear and exhibits very high surface hardness (M-95 on the Rockwell scale). Altuglas® **V 022 E** is an ideal material for LGP applications and alike.

Altuglas®

Altuglas® **HCR 3** and **CR 8 / CR 12 Grades:** Improved chemical resistance

Altuglas® **HCR 3**

Non impact-modified resin mainly intended for injection moulding, offering:

> Improved chemical resistance specially against alcohols with 3 times higher stress cracking performance than standard V grades.

> Very high heat resistance with 113°C in Vicat B50, allowing shorter cycle times.

> Premium surface hardness and scratch resistance.

Being a pure acrylic resin, Altuglas® **HCR 3** offers typical outstanding PMMA optics, UV resistance and mechanical strength.

Altuglas® **CR 8 / CR 12**

High impact-resistant resins mainly intended for extrusion and coextrusion, offering:

> Improved chemical resistance specially against alcohols with 4 times higher stress cracking performance than standard impact-modified grades.

> High heat resistance.

> Optimized Impact/ Surface hardness balance.

> Being pure acrylic resin, Altuglas® **CR 8 / CR 12** offer the typical outstanding PMMA optics and UV resistance.

Altuglas® **CR 8 / CR 12** and **HCR 3 Grades** are typically used in cosmetic, sanitary and bathroom ware applications where they perform better than regular PMMA grades.

Altuglas® **Opaque Grades**

Deep and highly shiny opaque colours are now available on demand in the Altuglas® range. Mechanical, chemical and thermal properties remain unaffected by the colouring step and thanks to carefully selected masterbatches, Altuglas® is able to offer delicate and perfectly UV resistant shades.
Thanks to our historical know-how and expertise, any crystal resin of the range can be offered in the shade of your choice. Eliminating the need for any protective or aesthetic topcoat, Altuglas® offers an environmentally-friendly and recyclable alternative to existing solutions.

Altuglas® **Opaque Grades** are sold in shiny black versions for automotive trims, make up cases and more and are available in other shades for construction, houseware and consumer goods applications.

Altuglas® **RNew 300**

Properties	**V 825T**	**Rnew 300 (based on V 825T)**
Light Transmission (%)	92	92
Haze (%)	0.5	2
MFI (230°C/3.8kg) (g./10mn)	2.8	10
VICAT B50 (°C)	108	88
Flexural modulus (Mpa)	3300	3500
Charpy unnotched (kJ/m^2)	11	11
Izod notched (kJ/m^2)	1.8	1.8

The formulation has been designed to optimize this blend's properties, among which are:

> very high scratch resistance (M-99 on the Rockwell scale).

> very good mechanical strength.

> very high flow.

> good optical properties.

> moderate temperature resistance (60°C max in a continuous use).

Not only are Altuglas® resins recyclable and processable in the most environmentally-friendly way of any plastic on the market, but Altuglas® is committing even further to sustainability by launching Altuglas® **RNew 300**: a PMMA blend with 20% of its Carbon content coming from renewable resources.

Altuglas® **RNew 300** is an ideal material for "green" furniture, houseware or cosmetic packaging and any application where finding more ecological solutions are of major concern.

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