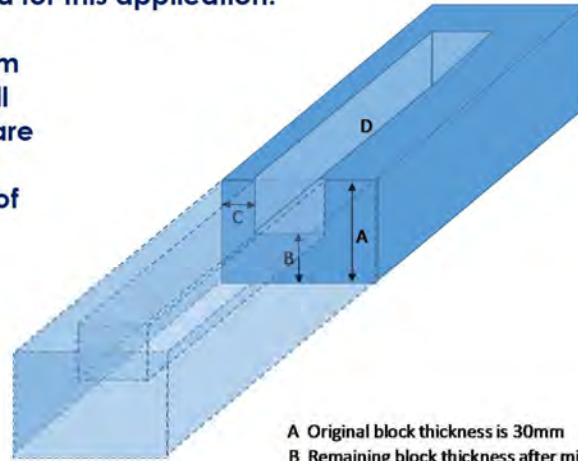


ALTUGLAS® CN BLOCK LED SYSTEM

The Altuglas® CN Block LED system is specially designed for illuminated signage for the purpose of building-in LED's. This option for illuminated-block-letters is pushing illuminated signage to a higher level in its appearance.

The block LED system range composition is really optimised to be used with built-in LED's, diffusing and hiding power properties are maximised for this application.

It is recommended to respect maximum build-in depth for the LED's of 10mm. All optimum block LED system properties are achieved in the remaining 20mm. This applies to both the front and the sides of the letter.



- A Original block thickness is 30mm
- B Remaining block thickness after milling min. 20mm
- C Remaining thickness remaining at sides min 20mm
- D Space to build in LED's (max 10mm in depth)

The level of light transmission for the block LED system is identical to that of the translucent sheets with the same colour reference (for the remaining 20mm after milling). In cases where the full block thickness is used, light transmission will be lower than the same colour reference in sheet. The 'ease' of use of Altuglas Block-LED system for illuminated block letters is mainly due to the fabrication of the sign. A single machining step is sufficient to prepare the PMMA base of the sign. By using a CNC router it is possible to convert, in a single step, the original Altuglas Block led into finished letter ready to build in the LED.

Optimisation of Block letter Illumination:

In case of complex letter shape or uneven illumination in the corner, it is possible to manipulate light transmission via dedicated milling. However do keep in mind the minimum recommended block material thickness.



reduced material thickness,
giving higher LT in corner.

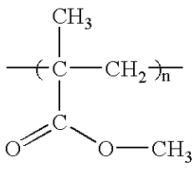
potential uneven illumination of this corner:
material thickness is more than rest of letter.

ALTUGLAS® CN BLOCK

ADVANTAGES

- Aesthetic – Easy integration in city centres and malls
- Very good transmission and diffusion of light
- Easy Machining – Reduction of the cost – Fast and automatized.
- Easy to mix with other products (metal, opaque film, wood,...)
- Complex shapes and thin letters are achievable

MAIN PROPERTIES

| | |
|-------------------------------|---|
| PMMA (Polymethylmethacrylate) |  |
| Light | |
| Optimised diffusion | |
| UV resistant - No Yellowing | |
| Easy machining | |
| Cost reduction | |



MAIN APPLICATIONS

- signage (illuminated block letter)
- furniture (Illuminated or not)
- shop fitting
- POP / POS

PACKAGING

- our standard film offers a strong adhesion thanks to an additional adhesive layer.
- our product is stored on wood pallets with a PP sheet at the bottom and a cardboard at the top
- the total weight of the pallet + blocks is less than one ton

STORAGE

The following rules must be observed

- store the product in a dry place, indoors
- place a polyethylene cover over the stack when a sheet is removed, to reduce moisture absorption.
- only use original delivery pallets
- stack pallets of the same size and design to prevent waving
- place pallets on even surfaces (floor or shelf)
- the durability of the protective film is limited (sensitive to UV, temperature, humidity and chemicals)

CERTIFICATES

- at block production we rely on the sheet norm ISO 7823-1 2003, where relevant regarding types, dimensions and characteristics
- our management system fulfils the requirements of the ISO 9001 : 2008

ALTUGLAS® CN BLOCK

TECHNICAL SPECIFICATIONS

| | Measurement Method | Unit | Value |
|--|--------------------|-------------------|----------|
| General Characteristics | | | |
| Density | ISO 1183 | g/cm ³ | 1.19 |
| Water absorption (24h) | ISO 62 | % | 0.3 |
| Water absorption (8 days) | ISO 62 | % | 0.5 |
| Thickness tolerance (30mm) <small>tolerance other thickness on request</small> | | % | ± 5 |
| Mechanical properties | | | |
| Modulus of elasticity (23°C) | ISO 527-2 | MPa | 3300 |
| Surface hardness (Rockwell scale M) | IS 2039 | - | 100 |
| Thermal properties | | | |
| Vicat softening point (B50) | ISO 306 | °C | 115 |
| Coefficient of linear expansion | ISO 11359 | mm/m/°C | 0.065 |
| Maximum continuous service temperature | - | °C | 85 |
| Maximum heating temperature | - | °C | 200 |
| Forming temperature | - | °C | 165-190 |
| Flammability | | | |
| Self-ignition temperature | - | °C | ~ 450 |
| Melt behaviour when burning | - | - | Non drip |
| Glow wire resistance | EN 60695-2-11 | °C | 750 |
| Euroclass classification | EN 13501 | - | E |
| UL | UL 94 | - | HB |

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See MSDS for Health & Safety Considerations