

# Installation instructions for multi-walled plastic sheets in acrylic (Plexiglas®) and polycarbonate (Polyclear®).

**You just bought a high-quality plastic multi-walled sheet. To avoid problems during its installation, please take following installation instructions into consideration.**

## Expansion space

Plastic sheets shrink and extend under the influence of temperature fluctuations, which can cause dilatation noises. Please take next tips into consideration:

- You must foresee 5 mm play per meter sheet length and 10 mm play in the width (5 mm per side).
- Never block the sheet in the width or the length.
- Do not use silicone: fixing the sheet with silicone prevents the dilatation and the shrinkage.
- If you block the sheet at the bottom against gliding, you must foresee all expansion space at the top.

## Silicone, rubber and timber protectors

- Almost all silicones affect the acrylic or polycarbonate. Ask for silicone types approved for use with acrylic and polycarbonate (proof of guarantee).
- The vapours of these kits must never come into the canals of the sheet. The ventilation holes and the sides of the obturator profiles should not be sealed. The silicone must always be able to evaporate freely.
- Some sealings contain softening agents (as used in some rubber, PVCu, polyurethane), which cause little splits. Only use approved sealings.
- Never use black or darkcoloured rubber to prevent from heat accumulation.
- A lead flashing may rest on the rubber but never on the sheets.
- Some paints, varnishes and timber protectors affect the acrylic and polycarbonate. Never use lubricants to put the rubber in the profiles.
- Never spray insecticides directly on the sheets. This could affect them.

## Maintenance

- Clean the sheets annually with tepid rainwater. You can add some non-aggressive household soap (no detergent!). Never use any solvents or abrasives.
- Never rub dry (scratches).
- Only rinse off.

## Installation

- Ask for the detailed installation instructions of the chosen profile system to avoid any problems during its installation. Some important instructions are:
- Very important: These sheets must always be installed with the UV protected side to the outside/top. This unsided is specially marked on the protection film.
- Install the sheets vertically or with inclination (unless inside use).
  - Minimum inclination: 10° (18 cm per meter) or more.
  - The direction of the sheet canals must always go along with the roof inclination.
  - Warmth-accumulation: the upper side of the support structure, turned to the sheets, must be WHITE reflective.
  - For this, use white dispersion paint (dilute in water or paint without solvent) or use preferably aluminium adhesive tape. Attention: after having paint the support construction, it must dry! Only install the sheets afterwards. NEVER install the plastic sheets directly on the timber.
  - Roof tiles or lead flashings must not rest on the sheets! There must be at least 10 mm space between the sheets and the roof covering.
  - We firmly advise against installing underceilings underneath the acrylic sheets. There are no specific precautions for polycarbonate sheets.
  - The plastic adhesive tape or the provisional aluminium tape only keeps the sheets dust-free during transport. The tape must definitely be removed! It is necessary to use adapted adhesive tapes and/or obturators.

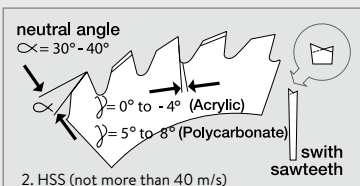
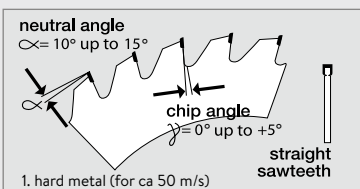
## Drainage and condensation

- Dust and damp may not enter into the cell structure of the sheet.
- combination of hermetic closed BT 16/25/32 tape at the top and BB 16/25/32 filter tape with an adapted obturator profile at the bottom, stops dust of > 35µm entering the cell structure.

- The obturator protects the sheet and must be provided with perforations of Ø 3,5 mm every 20 cm.
- Always seal the top side of the U profile with plastic friendly silicone.
- Wet and dry afterwards the edge of sheets with NO-DROP layer before taping the sheet.
- Make sure the bottom of the sheets NEVER stands in water (moss and algae).
- As acrylic and polycarbonate are not gas-and dampproof, condensation in the canals cannot 100 % be avoided. This, however, does not affect the quality or the guarantee of the sheet. An appropriate sealing is recommended.

## Sawing and drilling

- Always use a grease pencil to make notes on the protection film.
  - In order to get the sheets solidly clipped, the sawing should be done as close as possible to an upright rib.
  - When sawing, use a hard metal saw (Widia) with high rotation speed. Saw slowly and by preference with one move. Use new or sharpened saw blades. Make sure the sides are always smooth.
- ATTENTION: The basis on which the sheets are sawn, must be stable and vibration-free. The sheets must not move during sawing. The saw blade should always rise enough above the sheet.
- Type of saw blade:



- Remove all dust and sawing rests from the canals with pure compressed air or a powerful vacuum cleaner.
- Only remove the protection film after installation to avoid scratches.
- Drilling is strongly advised against. However, if unavoidable, provide with grooves (shrinking and dilatation).

## Piling

- Avoid direct sunlight on piled sheets.
  - If you pile the sheets outside, cover them with white polyethyl foil. Always keep the plastic friendly tape as sealing on the front sides of the sheets.
- The sheets must not be piled directly on the ground. Use appropriate pallet boards.

## Sun protection

- Should you wish to install sun protection, make sure this is done on the top side of the sheets, i.e. on the outside, at minimum 120 mm above the sheet.

Please consult our technical files and installation instructions for more details on the chosen profile system.

The guidelines about the installation are only informative. The installation remains the only and total responsibility of the client.

THE RESPONSIBILITY OF THE EDITOR IS EXPLICITLY DECLINED AS FOR THE INSTALLATION.

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## SHEET DIVISION

To be advised: use the standard sheet widths and saw matching sheets for the 2 exterior sides. This must certainly be done for S5P heatstop sheets. The closed sides help determine the mechanical strength of the sheet!

To be advised against: sawing the sheets into equal parts. Please, take the standard width of the sheets into consideration. We advise against the sawing of multi-walled sheets.