INSTALLATION INSTRUCTIONS FOR MULTI-WALLED POLYCARBONATE AND ACRYLIC SYNTHETIC SHEETS

You just bought a high-quality synthetic sheet.
To avoid problems during its installation, please follow these installation instructions thouroughly.
May we ask you to have special attention for: expansion space / silicone and timber protectors / rubber.

1. MARGIN SPACE

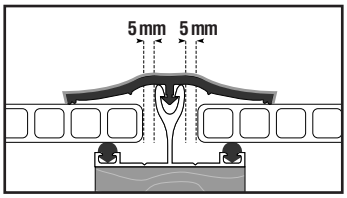
Synthetic sheets shrink and extend under the influence of temperature fluctuations. Please take next tips into consideration:

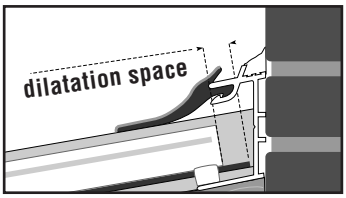
◆ You must foresee 5 mm play per meter sheet length and 10 mm play in the width (5 mm per side). e.g: a sheet of 3000 mm needs a margin of 1,5 cm in the length.

◆ Never block the sheet in the width or the length. Sufficient margin is needed.

◆ Never stick the sheet into silicone (even synthetic friendly silicone). You would prevent the shrinking and the dilatation of the sheet.

◆ As the sheet is stopped at the bottom against gliding, you must foresee all margin space at the top.





2. SILICONES, RUBBER AND TIMBER PROTECTORS

◆ Almost all silicones affect the acrylic or polycarbonate. Ask for the 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 cannot be sealed. The silicone must always 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 spray insecticides on the sheets. This could affect the sheets.

3. 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.

4. INSTALLATION

◆ Make sure you consider the safety instructions about working on roofs.

Polycarbonate sheets : very important! These sheets must always be installed with the UV protected side turned to the outside/top. This "sunside" is specially marked on the protection film.

◆ The synthetic adhesive tape or the temporary aluminium tape only keeps the sheets dustfree during transport. It must definitely be taken off! It is necessary to use adapted aluminium tapes and/or obturators. (See point 6 page 9).

◆ The support construction must be solid and stable (consult the instructions for the timber and metall construction). In function of the type of sheet, transversal supports can be needed. Take the respective charges 500 N/m² or 750 N/m² into consideration to use certain maximum lengths without transversal support according to the type of sheet (See table page 10).

◆ 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 tape. Attention: after having paint the support construction, it must dry! Only install the sheets afterwards. NEVER install the synthetic sheets directly on the timber.

◆ Roof tiles must not rest on the sheets! There must be at least 10 mm space between the sheets and the roof covering.

◆ To seal the opening between the sheet and the gutter beam, use a special weather strip (sealing rubber C6). (See page 2 fig. 6). Do not spout or fill with PU foam.

◆ We formly advise against installing underceilings underneath the acrylic (PMMA) sheets. If sunblinds or other accessories are installed, make sure you install these 120 mm from the sheet. The accessories cannot be insulated and are preferably reflective. There are no specific precautions for polycarbonate sheets.

◆ **WIDTH DIVISION OF THE SHEETS: WE RECOMMEND:** standard sheet width and a adapted piece for the two outer sheets. This must certainly be done with the S4P Heatstop sheets.

The closed sides also determine the mechanic strength of the sheet!

WE STRONGLY ADVISE AGAINST: sawing the sheets in equal parts (in the width) Take the standard sheet width into account.

5. GLASS

◆ For applications with glass, you always need to follow the instructions of the glass producer !

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6. DRAINAGE AND CONDENSATION

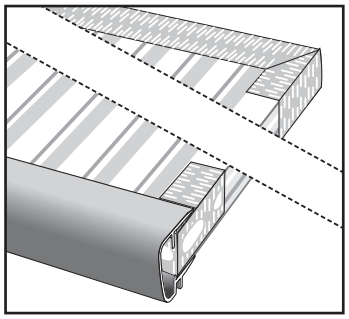
Dust and damp may not enter into the cell structure:

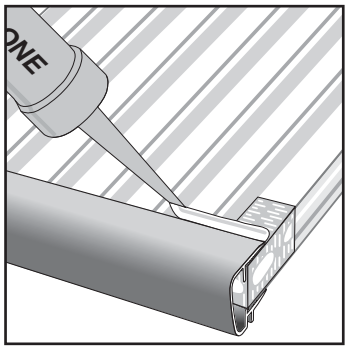
◆ A combination of BT 16/25/32 at the top and BB 16/25/32 with U16/25/32P at the bottom, stops dust of > 35µm from entering the cell structure.

◆ The underside is provided with a perforated aluminium filter tape. To protect the tape, use the U16P/U25P/U32P or a U profile with perforations of Ø 3.5 mm, installed every 20 cm.

◆ Seal the profile with synthetic friendly silicone to prevent water infiltration maximally.

◆ Wet the edge of sheets with no-drop layer and dry it afterwards before taping the sheet.





◆ Make sure that the bottom NEVER stands in water (moss and algae).

◆ - Condensation in the canals is not 100% inevitable (physical phenomenon).

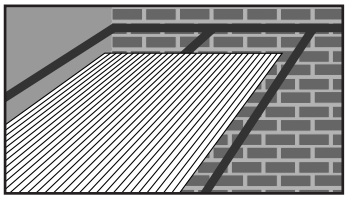
Acrylic and polycarbonate are very less gas- and dampproof. The characteristics of the material and the guarantee are not diminished because of this. An appropriate sealing is recommended.

7. SHEET DIRECTION

◆ Install the sheets with inclination or vertically, never horizontally (unless interior use).

◆ Minimum inclination: 10° (18 cm per meter) or more.

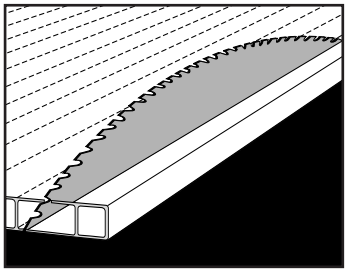
◆ The direction of the sheet canals must always go along with the roof inclination.



8. SAWING AND DRILLING

◆ Always use a grease pencil to make notes on the protection film (felt pen is difficult to remove)

◆ To ensure a fest clamping during the sawing, you should always make sure that a raised rib is as near as possible by a sawed edge.

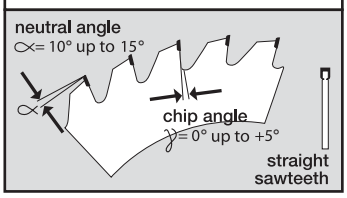


◆ When sawing, use a hard metal saw (widea) with high rotation speed. Saw slowly and by preference with one move. Use new or sharpened saw blades. Make sure the sides are always smooth.

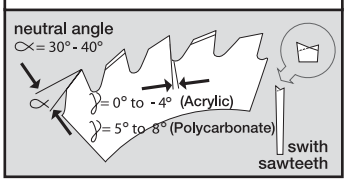
ATTENTION: The basis on which the sheets are sawn, must be stable and vibration-free. The sheets must not move during sawing. The saw blade must slightly reach out of the sheet.

◆ Type of saw blade:

1. hard metal (for ca 50 m/s)



2. HSS (not more than 40 m/s)



◆ Clean 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).

9. PILING

◆ Avoid direct sunlight on piled sheets.

◆ If you pile the sheets outside, cover the sheets with white polyethyl foil. Always keep the synthetic 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.

10. SUN PROTECTION

◆ If you install sun protection, you must do this on the upper side of the sheets: e.g. on the outside.

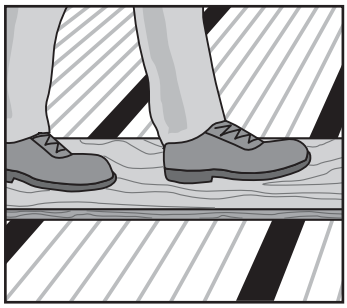
Attention:

Do not put the sun protection directly on the sheet!

You can also buy sunproof sheets (PC: Primalite® (Clear), Reflex Pearl®, Relax® - PMMA: S2P/S4P Heatstop) or install a Skylux® conservatory dome.

11. REMEMBER

◆ Never walk directly on the sheets. Always use solid timber boards underneath. Make sure these boards are supported by the timber construction.



12. SNOW AND SNOW PILE

◆ The multi-walled synthetic sheets resist normal snow load. You can find the maximum snow load on the technical files per sheet type and size. In case of heavy snow fall, we recommend to regularly clear the snow. The conservatory roof must also be protected against snow falling from a higher situated roof.

13. FURTHER INSTRUCTIONS

◆ As we already mentioned several times, synthetic sheets shrink and dilate under the influence of temperature fluctuations. When they move with regard to the roof construction, there can be some creak noises. There is no danger for the sheets if they have been installed according to the installation instructions.

◆ Screwed clipses cause more creak noises with synthetic sheets.

◆ Clamp profiles of synthetic friendly rubber bring clearly lesser creak noises.

◆ For applications with glass: see Pergolux® Glass

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