

# SmartPIU

Multiwall Polycarbonate Patio Roofing

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## Innovative Translucent Sheeting

Stratco SmartPIU is an innovative 2.5mm thick multiwall corrugated polycarbonate sheet for use in domestic patio and home improvement roofing applications. The uniqueness of this product lies in its strength, spans and clean appearance. Product spans up to 1400mm separate SmartPIU from all other polycarbonate seen on the market today.

Its amazing heat and light transmissions and high performing thermal rating make it the polycarbonate of choice. The thin sheet thickness allows for greater versatility for overlapping and the multiwall structure offers remarkable advantages if compared to single skin sheets.

## SmartPIU Features

- Higher UV protection than single skin product
- 25% better thermal insulation than single skin
- 50% better spanning capability than single skin
- Excellent light transmission
- Sunlight diffusion - no blinding rays or hot spots
- Market leading minimum 3 degree sheet fall
- 10 Year product warranty

## Use & Maintenance Requirements

**Before Installation:** SmartPIU must be protected from sun and rain prior to installation to prevent any possible accumulation of heat, and the build up of condensation within the sheet's multiwall structure.

**Installation:** The material must be installed with the UV protected layer always outwards and the protective film must be taken off after the installation.

**Safety During Installation:** Multiwall polycarbonate sheets can not be walked upon. Do not walk onto the sheets and follow safety regulations and safe methods of installation.

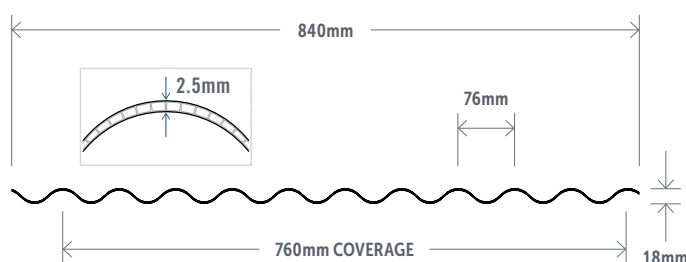
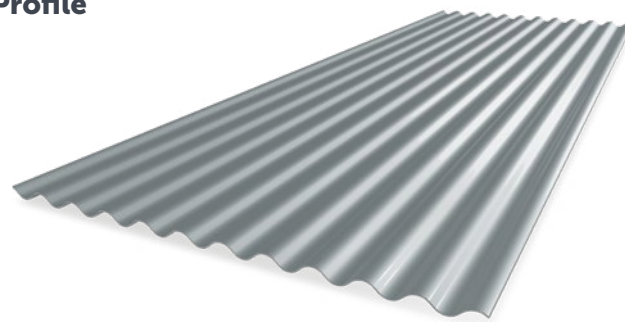
**Product Care:** Polycarbonate can suffer chemical attack from some products. Only use compatible clear silicone when sealing. Cleaning of the sheets must only be done with water and mild detergents. Do not use bituminous or tar joints in contact with the product.

**Cutting and Drilling:** Sheets can be cut on site with a cutter or a hack sawing machine. Once a sheet has been cut, seal the open cells with an adhesive aluminium tape. Sheets can be drilled using a drill and suitable heads. The hole must be 3mm wider than the screw gauge.

**Curving:** Cold curving of the sheets can be done on site along the flute direction and respecting the minimum curving radius.

**Sealing of the Cells:** Sheet cells can be thermosealed or taped to prevent them from getting dirty with dust. These methods do not seal the air inside the cells and condensation can appear both on the internal and external side of the cells. Condensation depends on the weather conditions as well as on the specific conditions of installation. It is not connected with the production quality and no claims will be accepted.

## Profile



## Specifications

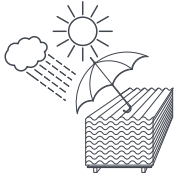
	Clear	Opal	Solar Ice	Grey	Solar Grey
Light Transmission	84%	76%	48%	32%	19%
Heat Transmission	69%	41%	26%	47%	18%
R Value	0.21	0.21	0.21	0.21	0.21
Shade Factor	1	2	6	4	7
Maximum Span	1400mm	1400mm	1400mm	1400mm	1400mm
Minimum Roof Pitch	3°	3°	3°	3°	3°



## Fixing Recommendations

**Loading and Spacings:** Check our technical literature to determine loading and spacing of the whole roof system.

Figure 1.0



PROTECT THE SHEETS FROM THE SUN AND RAIN BEFORE INSTALLATION.

Figure 2.0



ALWAYS INSTALL THE SHEETS WITH THE UV PROTECTED LAYER FACING OUTWARDS.

Figure 3.0



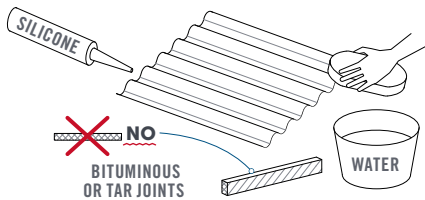
SMARTPIU MULTIWALL POLYCARBONATE SHEETS CAN NOT BE WALKED UPON.

Figure 4.0



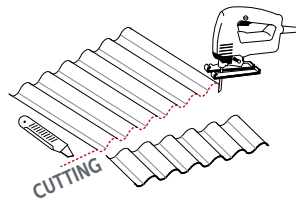
DO NOT WALK ON THE SHEETS AT ANY TIME. FOLLOW SAFETY REGULATIONS AND SAFE METHODS OF INSTALLATION.

Figure 5.0



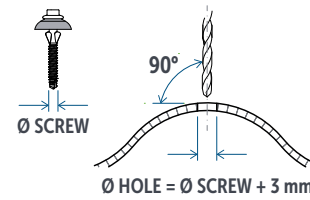
POLYCARBONATE MAY SUFFER A CHEMICAL ATTACK FROM SOME PRODUCTS. ONLY USE COMPATIBLE CLEAR SILICONE FOR THE SEALING. ONLY USE WATER AND MILD DETERGENTS FOR CLEANING.

Figure 6.0



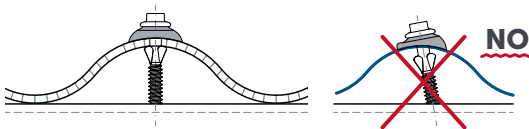
SHEETS ARE SUPPLIED TO THE EXACT LENGTH REQUIRED WITH THERMOSEALED ENDS. SHEETS CAN BE CUT ON-SITE USING A JIGSAW OR A CUTTING KNIFE. SEAL THE OPEN CELLS AFTER CUTTING WITH APPROVED SILICONE.

Figure 7.0



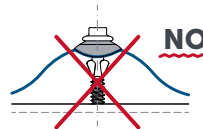
DRILLING OF THE SHEETS CAN BE EXECUTED ON-SITE BY MEANS OF DRILL AND SUITABLE HEADS. THE HOLE MUST BE 3MM WIDER THAN SCREW GAUGE OR A SLOT ALONG THE LENGTH. NOTE: NOT REQUIRED IF USING APPROVED POLYCARBONATE SCREWS.

Figure 8.0



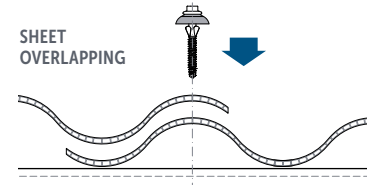
THE SCREW FIXING MUST BE INSTALLED PERPENDICULAR TO THE SHEET.

Figure 9.0



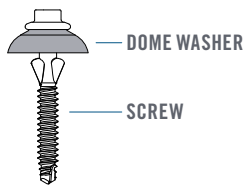
DO NOT OVERTIGHTEN THE SCREWS AS YOU MAY DAMAGE THE SHEET AT THE FIXING POINT.

Figure 10.0



### Fastener Selection

#### Roofing - Crest Fixing Only



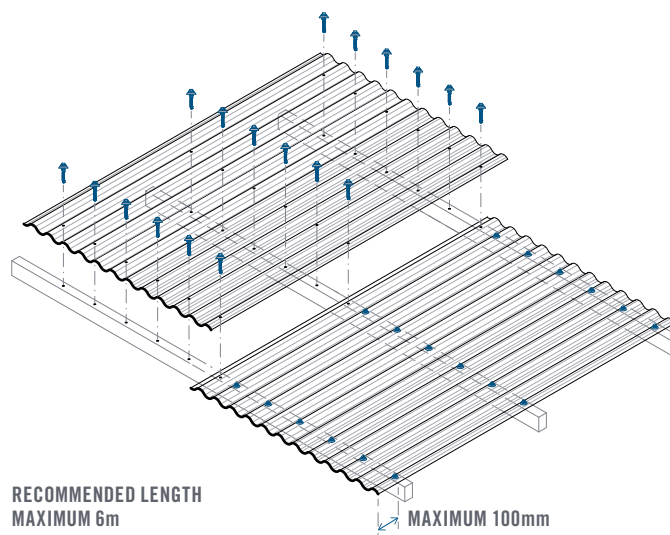
#### M6.5 x 50mm

Hex Head PolyZips® with Domed Washer Climaseal 3 Recommended for crest fixing SmartPIU sheets to timber battens and steel up to 1.2mm thick.

### Roofing Laying Procedure

» PREVAILING WIND

LAYING DIRECTION «



RECOMMENDED LENGTH  
MAXIMUM 6m

MAXIMUM 100mm





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How To.

