


Smart*Lite*

MULTIWALL SHEET



LIGHTING THE WAY
NATURALLY

Australian Owned By



FGW
CORPORATION PTY LTD




Smart*Lite*

M U L T I W A L L S H E E T

Smartlite Multiwall sheet incorporates the latest polycarbonate technology that reflects the sunlight heat while at the same time allowing the light to go through making the people underneath feel comfortable and at the same time enjoying the sufficient light. SmartLite Multiwall sheets have many merits of good impact resistance, heat insulation, sound insulation, lighting, anti-UV, fire retardant and so on. The Smartlite Multiwall sheets are widely used in agricultural greenhouses, commercial lighting roofing, stadium roofing, carports and awnings and many other uses making it one of the most desirable glazing roof materials in the world. FGW Corporation stock 10mm twinwall sheet which is widely used in commercial and residential applications. Smartlite Multiwall can be supplied up to 40mm thick when required.





ENERGY EFFICIENT

The multiwall construction traps air between the layers still letting the light in while keeping the heat out for maximum comfort. These excellent insulation properties saves on air conditioning and heating cost.

WARRANTY

All Smartlite Multiwall sheets are backed by a 10 year limited warranty against excessive yellowing, loss of light transmission and loss of strength due to weathering.



AGRICULTURE

Along with the development of agricultural science and technology, polycarbonate sheet application in this field is ever more important. Adopted advanced patent technology, off double sides UV protection and more superior function of easy to clean and anti-droplets performance, which keeps high light transmission. Smartlite multiwall polycarbonate sheet is the ideal material of modern ecological greenhouse.

99.9% UV PROTECTION

The co-extruded UV barrier on both sides protect you and the family from harmful UV radiation.

DOUBLE SIDED UV RESISTANCE

Our Multiwall sheets feature the UV protection both sides protecting from harmful UV radiation giving superior resistance to outdoor weathering and the sheeting from UV degradation and yellowing.



CURVING SHEETS

Sheets can be cold curved and serve in arched shapes providing the Smartlite Multiwall specifications for minimum radius in cold curving are followed. These specifications can be found in the installation instructions of the relevant sheets. Multiwall sheets can be arched so that the actual ribs will be curved (lengthwise). Curving is not recommended across the rib direction.



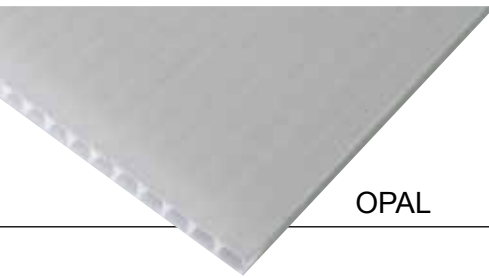
Why Multiwall

MULTIWALL SHEET

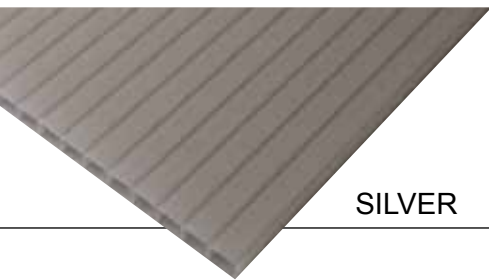
Smartlite Multiwall sheets are manufactured by one of the leading polycarbonate manufactures in the world and distributed throughout Australia by FGW Corporation Pty Ltd. Smartlite multiwall sheeting is manufactured using resins from Bayer in Germany and Lexan PC resin from Sabic (former GE in USA) and all are manufactured and certified to a high quality. FGW Corporation stock 10mm Twinwall sheets in a good range of colour's, there is also the availability of multiwall sheets up to 40mm thick and U shape sheets up to 30mm thick making this one of the largest ranges available in Australia. FGW Corporation aim to increase our stock range over time.



BRONZE



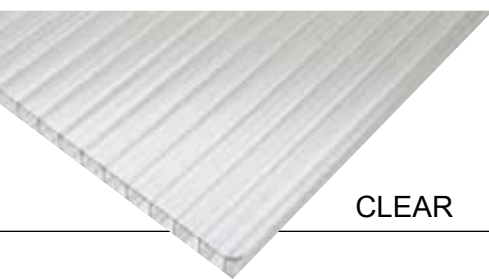
OPAL



SILVER



GREY

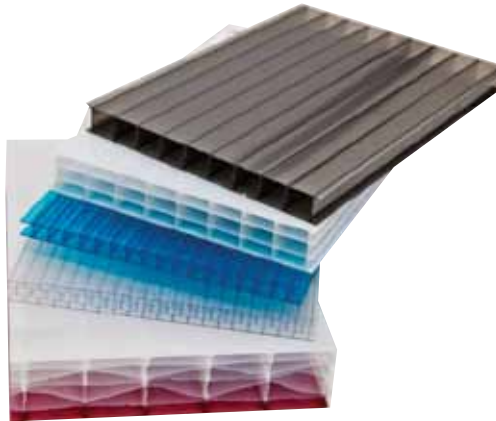


CLEAR



MULTIWALL SHEET

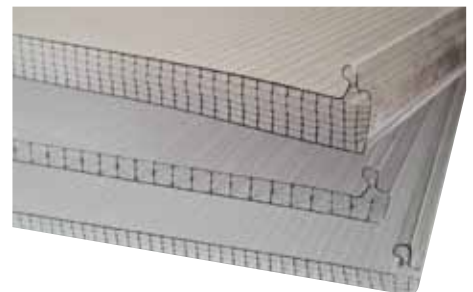
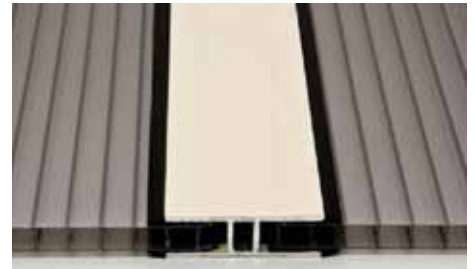
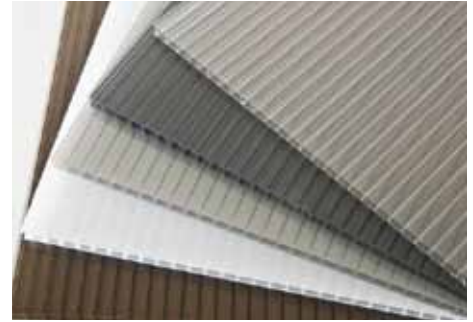
Smartlite polycarbonate sheet has outstanding performance of anti-impact, UV protection, heat insulation, sound insulation, antflaming, safety and weather ability and so on.



EDGE BAR

H BAR

END CAP



U SHAPE SHEETING

HANDLING AND STORAGE

SL Multiwall sheets should be stored on a flat surface, sheets should be kept dry and ventilated, preferably with a top roof and out of direct sunlight and rain.

Do not allow moisture to enter the flutes as this may cause sheet discolouration.

SL multiwall sheets are packed with waterproof protective film at the factory, and the protective film should not be removed before the actual installation. Avoid contact with chemicals, paints, solvents, abrasive cleaners and sealants (especially silicone) as many of these are incompatible with polycarbonate sheet.

CUTTING

SL multiwall sheets can be cut by standard wood or metal processing equipment, the use of specially designed plastic blade will mean a better result. Ordinary circular saw and hand saw can be used. It is also possible to use a portable electric saw (machine saw), but be sure to cut them slowly. The sheet should be supported in the vicinity of the cut to prevent vibration, and to clean away the dust and debris generated by cutting to keep the sheet clean.

SEALING AND BONDING

SL multiwall sheets can withstand a variety of corrosive chemicals and for another group of chemicals their tolerance is limited. There is also a group of chemicals which will damage the sheet. The extent of the damage depends on the severity of the erosion and the exposure time. Chloroprene rubber (CR), ethylene propylene diene monomer rubber (EPDM) and neutral silicone etc. are recommended when sealing. If other material is chosen, its chemical compatibility with PC solar

panel should be considered. In addition, the thermal expansion and anti-aging properties have to adapt to the solar panels.

PREPARATION BEFORE INSTALLATION

Both sides of the SL multiwall sheeting have protective membranes applied in order to protect the surface of the sheet you should not damage the membrane before installation.

During the process of installation tear the edge of the protective membrane to about 5cm according to the needs. After the installation is complete remove the membrane in the shortest time. The membrane if exposed to direct sunlight may degrade the membrane itself, making it very difficult to remove, and voiding the warranty.

TYPICAL APPLICATIONS

Patios, Pergolas, Covered Walkways, Stadiums Roofing, Swimming Pool Enclosures, Green Houses, Industrial Glazing, Screening, Partitioning.

SAFETY RECOMMENDATIONS

No Multiwall polycarbonate sheeting is trafficable therefore do not apply a load or your weight directly to the sheet. Use walking board along rafters at all times. Some sheet structures may be used without safety mesh, for safety reason we recommend the use of safety mesh for installations above 3m.

REQUIREMENT FOR SAFETY MESH

Some sheets structures may be used without safety mesh as per AS1562.3:1996. No Multiwall polycarbonate sheet is trafficable and should therefore only be walked upon with the use of walkboards. Please contact your nearest distributor for details.

SHEET COLOUR AVAILABLE	Clear, Opal, Grey, Bronze, Silver
WIDTHS AVAILABLE	700mm, 1050mm
LENGTHS	2m, 2.5m, 3m, 3.5m, 4m, 4.5m, 5m, 5.5m, 6m, 6.5m, 7m, 7.5m
SHEET MASS 10mm	1700gsm

RAFTER & PURLIN NOMINAL SPACINGS (mm)			
THICKNESS	SHEET WIDTH	RAFTER CENTRES	PURLINS CENTRES
10mm	700mm	720mm	Not required
10mm	1050mm	1070mm	1200mm

For High Wind installation contact FGW Corporation Pty Ltd.
Above figures based on 900N/m²

LIGHT TRANSMISSION & SOLAR TRANSMISSION		
10mm TWINWALL	AMP LIGHT	SOLAR
Clear	80%	85%
Opal	48%	71%
Grey	20%	50%
Bronze	35%	55%
Silver	15%	29%

Widths: 700mm & 1050mm wide in all colours

SMARTLITE MULTIWALL INSTALLATION GUIDE

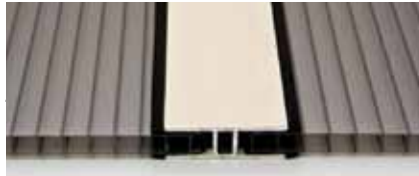
Both sides of the SL multiwall sheets have protective membranes. In order to protect the surface of the sheet you should not damage the membrane before installation. During the process of installation tear the edge of the protective membrane in the shortest time. Failure to do so exposes the membrane to direct sunlight and possible degradation of the membrane itself. This makes it difficult to remove and could void the warranty.

INSTALLATION HINTS

1. Install sheets with ribs (flutes) running vertically in the direction of the fall of the roof with a minimum fall of 5°.
2. Check recommended purlin spacing on chart.
3. Both sides of the sheet are UV protected and can therefore be installed with either side facing up.
4. Smartlite Multiwall sheets can be cut using a sharp knife, hand saw or circular saw with a fine tooth blade suitable for plastics.
5. Before sealing the ends use an air hose or vacuum to clean the flutes then apply Breather tape to the top and sealing tape to bottom ends of sheets, before sealing.
6. Do not use silicone that are not 100% chemically compatible with polycarbonate sheeting.
7. Never walk on or apply load or your weight directly to sheeting.

INSTALLATION GUIDE

1. Ensure your roof pitch is at least 5 (86mm per lineal metre) to allow adequate water run off.
2. Peel back protective membrane about 50mm on all edges of sheet (see diagram), clean the flutes and apply breather tape to the top and sealing tape to the bottom of the sheet. Remove protective membrane after installation in the shortest time.
3. UV Protection - must read install information on sheet printing side to sun.
4. Place a cut to size Edge bar squarely on the first purlin fixing the Edge Bar with a 12g screws (maximum spacing 600mm) so the first Multi wall sheet can be installed.
5. Apply Edge Bar gasket to one side of first sheet then push the Edge Bar side of the sheet into the Edge Bar installed on the first purlin. A rubber mallet may be used (very softly) to tap the sheet into the Edge Bar.
6. Install a H Bar gasket onto the other side of the installed sheet then push the H Bar section onto the sheet. Continue installing the H Bar gaskets and H Bar section until all sheets are fixed fixing all H Bar section onto the purlins as you go.
7. The last sheet edge will be finished off with Edge Bar gasket and Edge Bar section to match the first sheet installed.
8. Make sure all sheets are installed with Breather Tape to the top and sealing tape to the bottom.
9. Place End Cap gasket over sealer tape at the end of the sheet, stopping at the H Bar sections. See Diagram.
10. Fasten the Aluminium End Cap over the gasket and H Bar fixing with a screw to the H Bar. Drill a small weep hole on the underside of the End Cap where it meets the H Bar.



TERMS AND CONDITIONS

This warranty applies from the date of original purchase and valid only to the original purchaser of the product (claims must be accompanied by an original purchase receipt). The product must be for domestic use only and must have been stored, installed and cleaned in accordance with the manufactures recommendations. The product is protected on one side with a UV protective layer and the warranty will only apply if the sheet is installed with the UV side facing the sun. Loss of light transmission caused by atmospheric deposits or dirt, chemical reaction, abrasion and like events are not covered by this warranty. Any product under warranty claim must be made available for inspection by FGW. If FGW determines that a claim for warranty is justified the liability of FGW is limited to the supply of replacement sheet. Costs associated with the removal and refixing of sheets or any loss or consequential damage of any kind are not covered by this warranty. Sheets failure due to incorrect installation or fair wear and tear is not covered by this warranty.

DISCLAIMER

Colours depicted in this brochure are offered only as a guide and should not be used as a selection. Some colour variation may occur between production runs. Transmitted light and colour may vary in intensity depending on weather conditions. The information in this brochure is to the best of our knowledge accurate at the time of printing. All recommendations are made in good faith but without warranty.



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