



POLYSIL LTD

Guide To GRP Roofing

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Application Notes - Some Useful Tips

If this is your first attempt - try a test piece in the comfort of your own garage before you go on the job!

- ◆ Don't use cheap ply! Use OSB3 Sterling Board or WBP ply - 18mm. T & G OSB 3 Sterling is excellent.
- ◆ If you use ply, it should be roughly scuffed up first to facilitate good adhesion
- ◆ Don't laminate in the wet and keep the mat dry - bin liners are good.
- ◆ Get a local weather forecast.
- ◆ Carry a tarpaulin or polythene sheet on the wagon - if it rains you can put it over an uncured laminate. (Check the tarp first with some resin to make sure it won't bond). Polythene won't stick.
- ◆ Always leave a 5mm gap between ply boards for expansion - never bond to abutment walls.
- ◆ There is no need to gap or tape T & G Sterling board. Use Sterling board gap side/writing side up.
- ◆ We have clear topcoat and a range of colour pigments - don't choose white or black.
- ◆ Use G4 primer onto steel, concrete, lead. Apply fibreglass within 6 hrs. (IMPORTANT)
- ◆ Bond to difficult surfaces with dry glass and Adflex sealant. Leave 1hr then laminate onto the glass.
- ◆ Avoid bitumen! Isolate with dry glass/Adflex, or re-deck with skin of width 12mm ply.
- ◆ Always use screws or ringnails to fix the boards.
- ◆ Use Adflex sealant to waterproof trim joints and trims to boards. Never use silicone sealants.
- ◆ Don't leave large quantities of catalysed resin in buckets. They could catch fire.
- ◆ Use the empty kegs as waste buckets. Dispose of catalysed resin below water in these kegs.
- ◆ Always keep the lid on the acetone or it will evaporate.
- ◆ Don't smoke near the acetone or resins.
- ◆ Put a wire cage in the bottom of your acetone bucket - it keeps the tools out of the residue.
- ◆ Trims have a non-shiny side for bonding. You need to rough up the shiny side first.
- ◆ Dark grey trims (lead look-a-likes) need sanding before bonding.
- ◆ Plan the job - pre cut the glass, and don't run out of materials.
- ◆ The colour of grey topcoat can vary batch to batch; don't get caught out half way through the job.
- ◆ Always wear gloves and overalls.
- ◆ Above all, DON'T PANIC!!

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Quick Estimating Guide - Domestic Extension

COST

6m x 3m = 18m² - plus approx 10% waste = 20m².

What you will use on the roof will be:

Boards/m ² .	20 x £6	£120.00
Glass fibre, resin, topcoat, cat etc/m ²	20 x £9	£180.00
Edge trims/linear mtr	20 x £5	£100.00
Tools and disposables		£50.00

Total **£450.00**

SALES

Example 1. Sold at £50m ²	Return	£1,000.00
Example 2. Sold at £70m ²	Return	£1,400.00

Most contractors would expect to re-board and fibreglass a domestic roof, including top coating, in 16 man hours (2 men, one day).



Catalyst Addition

How to weigh **RESIN** without scales?

VOLUME (litres)	=	Weight (kg)
5 ltr bucket	=	5 kg
2.5 ltr bucket	=	2.5 kg
1 ltr bucket	=	1 kg

How much **CATALYST**?

1.0 kg resin mls	@ 1%	=	10 mls catalyst	@ 2%	=	20
2.5 kg resin mls	@ 1%	=	25 mls catalyst	@ 2%	=	50
5.0 kg resin mls	@ 1%	=	50 mls catalyst	@ 2%	=	100

1.0 kg flowcoat 20 mls	@1%	=	10 mls catalyst	@ 2%	=
2.5 kg flowcoat 50 mls	@1%	=	25 mls catalyst	@ 2%	=

Sunny Day - Resin @ 1% minimum
Flowcoat @ 1% minimum

Cool Day - Resin @ 2%
Flowcoat @ 2%

Cold Day (min 5°C) - Resin @ 3 - 4%
Flowcoat @ 3%



“Cure It” Estimation and Costing

4) METHOD

- ROOF - How many square metres....?
- GLASS - $m^2 \times \text{weight of glass (+ 10% for waste/strips)}$
- RESIN - $\text{weight of glass} \times 3$
- FLOWCOAT - $m^2 \times 0.5$
- CATALYST- $(\text{wt resin} + \text{wt flowcoat}) \times 0.03$

5) EXAMPLE

- ROOF - $10m \times 3m = 30m^2$
- GLASS - $30m^2 \times 0.6kg = 18 + 10\% = 19.8kg$
(3 x 20kg kegs)
- RESIN - $19.8KG \times 3 = 59.4 kg$
(1 x 20kg keg)
- F-COAT - $30m^2 \times 0.5 = 15 kg$
- CAT - $(59.4 + 15) \times 0.03 = 2.2 kg$

6) COSTING

- GLASS - $19.8 kg @ £2.38 / kg = £47.12$
- RESIN - $59.4 kg @ £3.70 / kg = £219.78$
- F-COAT - $15.0 kg @ £4.10 / kg = £61.50$
- CAT - $2.2 kg @ £6.00 / kg = £13.20$

TOTAL COST (30m2) £341.60 + VAT

COST per m2 cost £11.39 + VAT
(NB Does NOT include trims)

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Sterling Board

What is the best decking for GRP roofing? Recent tests have shown that 18mm T & G Sterling Board (OSB3) out-performs all other sheet material for decking:

Advantages:

- Better adhesion than plywood – no need to abrade before bonding.
- T & G locks together - and transfers all expansion to the perimeter edge.
- No need to tape joints in a T& G laid deck - saves time and money.
- Ease of handling - 8' x 2' boards can be easily carried up ladders.
- BBA Certified for flat roof applications (BS EN 15090).
- Tested with Polysil Roofing Resin to produce a fully bonded system.

And it's ecologically sound too...

“Sterling OSB is a homogenous wood-based panel manufactured from softwood strands compressed and bonded together with exterior grade, water resistant resins. The trees used to make Sterling OSB are the routine thinning of managed plantations. The manufacturing process utilizes over 95% of the wood, with very little waste created. The bark is removed and used as either fuel or for horticulture.”

We now have Sterling Board in stock:

18mm OSB3 Conditioned Sterling Board-BBA approved.

2420mm x 590mm (approx 8' x 2' - T & G on four sides).

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Starter Kit

5 x	5ltr buckets	£0.95 each	£4.75
2 x	1 ltr buckets	£0.48 each	£0.96
2 x	Roller 7" complete	£1.95 each	£3.90
4 x	Roller 7" sleeve	£1.50 each	£6.00
2 x	Paddle rollers (22x150mm)	£5.50 each	£11.00
1 x	Large Catalyst Dispenser	£6.75 each	£10.45
1 x	Latex Gloves (100)	£3.95 each	£3.95
1 x	5 Ltr acetone	£8.50 each	£8.50
2 x	2" brushes	£0.66 each	£1.32
2 x	Adflex Sealant	£4.95 each	£9.90

TOTAL £60.73 (ex VAT)

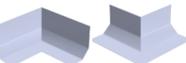
Other Products

List Price

Chopped strand mat (roll)	£2.38 / kg
20 kg Roofing Resin	£49.00
20 kg Roofing Topcoat	£55.00
25 kg Granulated Slate (non-slip additive)	£7.50

- Quantity discounts available
- Trade accounts available. Please ask for details.

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GRP Trims				
Code	Section	Dimensions	Description	Price Excl VAT
A200		Girth: 200mm Depth : 90mm	Fitted to roof edge to allow drainage into gutter. Compatible with C1 universal external corners.	£12.50
A250		Girth : 250mm Depth : 140mm	Roof edge detail to cover insulation. Deep fascia to allow gutter penetration.	£12.50
B230		Girth : 230mm Depth : 105mm	Flat roof edge detail to prevent water run off.	£12.50
B260		Girth : 260mm Depth : 125mm	Roof edge detail compatible with universal corners.	£12.50
B300		Girth : 300mm Depth : 180mm	Deep fascia raised edge trim. Drip matches with A250 trim.	£12.50
C100(MT)		Vertical Cover : 100mm Wall Penetration : 35mm	Replaces traditional lead flashing. Dark grey, non-adhesion finish to simulate the appearance of lead. Do not top coat! C100MT with integral self securing moisture trap.	£10.00
D260		Girth : 260mm Flanges : 100 & 80mm Upstand Height : 120mm	Asymmetric fillet trim for use against abutting walls. Also provides expansion and perimeter ventilation.	£12.50
ER35/40		Girth : 130mm Flanges : 20mm Height : 40mm Roll Width : 35mm	Used to simulate the appearance of raised rolled lead joints. Also provides expansion. Available with preformed closures.	£14.00
E280		Girth : 280mm Flanges : 90mm Height : 50mm	Used both to create expansion joints on large roofs and to create rolls on any ridge details.	£14.00
F300		Max Width : 900mm Standard Width : 300mm Max Length : 20m	Flat section for use as continuous flashing under slates at roof junction. Also may be used as gutter lining	£72.00
G180		Girth : 180mm Flanges : 30mm Depth : 15mm Trough Width : 80mm	Used on larger roofs to aid drainage and to ensure gapping of underlying timber to facilitate expansion.	£12.50
AT195Int		Girth : 195mm Flange Widths : 105 & 85mm	Adhesion on inner face for forming upstands, gutter floors etc.	£11.50
AT195Ext		Girth : 195mm Flange Widths : 105 & 85mm	Adhesion on outer face for step details, cover flashings etc.	£11.50
C1		Hot Press moulded GRP pre-formed corner.	For use with sections A200 and B260. Provides pre-formed right and left hand corners.	£5.50
C2		Right and Left hand mouldings available.	For use at junction of flat roof and abutting wall. Compatible with A200, B260 and D260 trims.	£5.50
C3		External / Internal corner fillet trim.	Used as preformed internal / external corners for D260 fillet trim. Avoids mitring in situ.	£5.50
C4		Hot Press moulded GRP pre-formed internal corner.	For use with sections A200 and B260. Provides pre-formed right and left hand internal corners.	£5.50

C5		Preformed Roof Ridge Closure	Preformed closure trim for application to end of roof ridge section.	£5.50
C6		Preformed Rolled Rib Closure	Preformed closure trim for application to end ER35/40 details.	£5.50