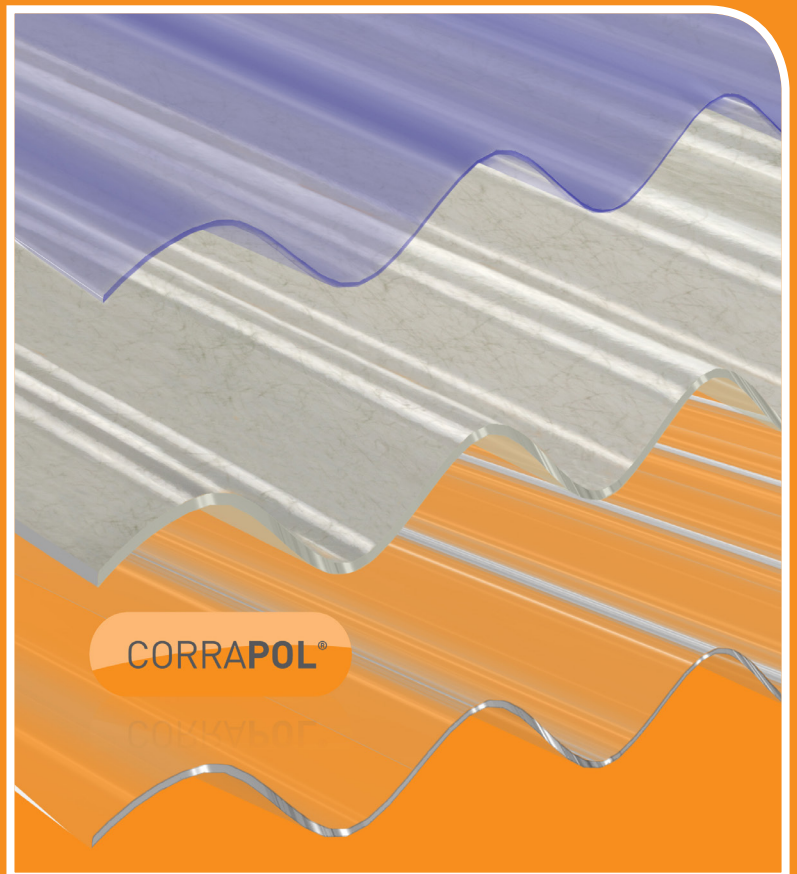


CORRAPOL®

Clear **Corrugated Sheet Ranges** Technical Guide



Clear Corrugated Sheet Ranges

The CORRAPOL® Clear Corrugated sheet range is manufactured for a wide variety of applications and offers different extrusions for varying longevity and budget requirements. The CORRAPOL® STORMPROOF provides a long lasting superior corrugated roof glazing solution, whereas the CORRAPOL® DIY grade provides a more cost effective option. This brochure provides a guide as to the range and specific benefits of each extrusion type which we manufacture, along with some technical data, and installation guidelines.



Common uses:

- ✓ Carports
- ✓ Greenhouses
- ✓ Canopies
- ✓ Shelters
- ✓ Verandahs
- ✓ Covered Walkways
- ✓ Swimming Pools
- ✓ Factory Partitions
- ✓ Cold Frames

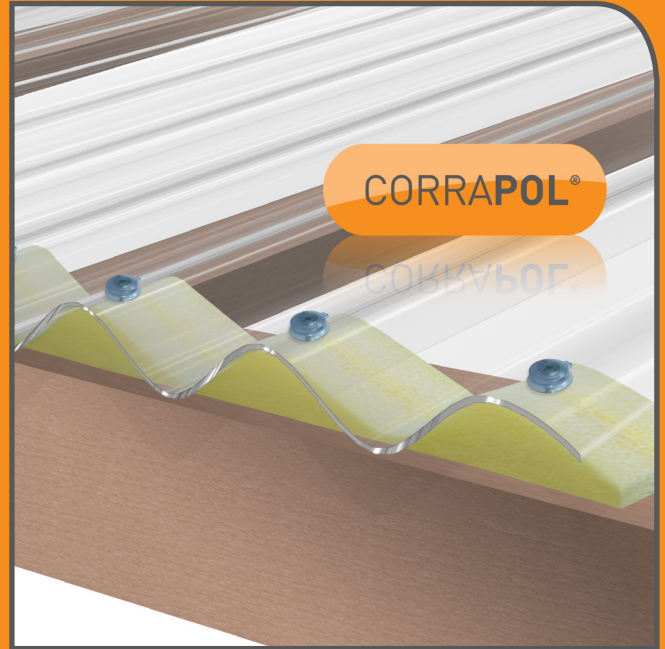


CORRAPOL® STORMPROOF : Low & High Profiles

CORRAPOL® STORMPROOF Sheets are the strongest and longest lasting sheet within the CORRAPOL® range is the CORRAPOL® STORMPROOF range. CORRAPOL® STORMPROOF clear sheets are extruded from virtually unbreakable plastic resin which offers superior strength, excellent clarity and above all unrivalled weathering characteristics resulting in a very long life span. This superior strength and longevity mean that CORRAPOL® STORMPROOF clear sheets will not go yellow or brittle with age, and won't crack during installation like lower cost PVC options tend to. CORRAPOL® STORMPROOF clear sheets are made from resin which makes them 200 times stronger than glass of the same thickness which is generally considered to be virtually unbreakable and what we call 'STORMPROOF'. The UV protection layer incorporated in to the manufacturing process of CORRAPOL® STORMPROOF sheets mean they will provide superior light transmission for many years.

Key Benefits:

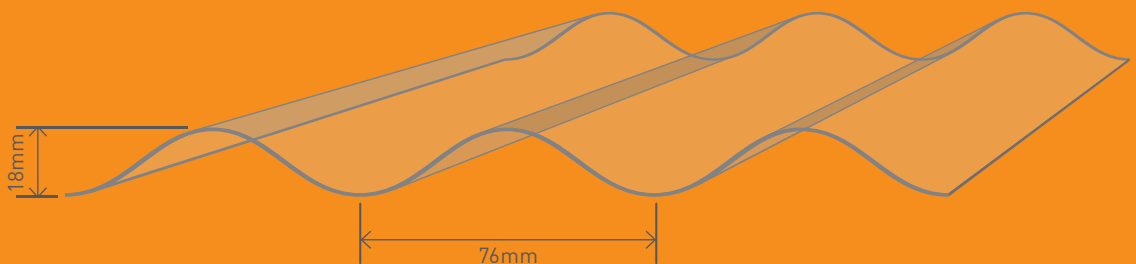
- ✓ Maintains Great Light Transmission
- ✓ UV Protected
- ✓ High Impact Strength
- ✓ Virtually Unbreakable
- ✓ Estimated 25 year Lifespan
- ✓ Doesn't discolours like cheaper alternatives
- ✓ Doesn't Crack when Fixing like PVC



CORRAPOL® STORMPROOF : Low Profile Sheets

Common Uses:

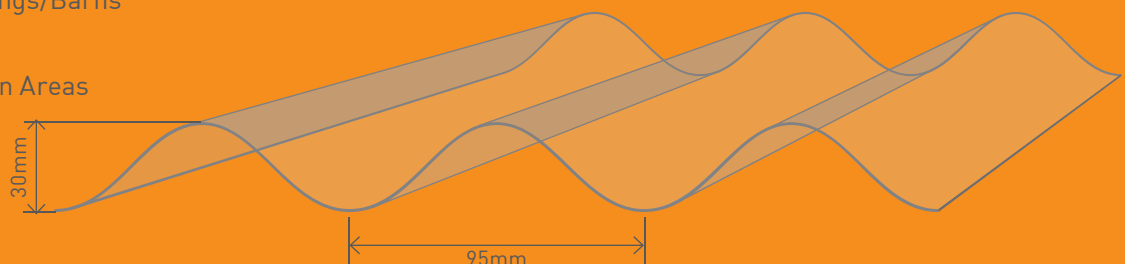
- ✓ Carports
- ✓ Canopies
- ✓ Cold Frames
- ✓ Porches
- ✓ Greenhouses



CORRAPOL® STORMPROOF : High Profile Sheets

Common Uses:

- ✓ Agricultural Buildings/Barns
- ✓ Garages
- ✓ Covered Equestrian Areas



CORRAPOL® STORMPROOF : Technical Data

The value and quality of a construction material is indicated by the standards which it meets. The tables below list the stringent international standards CORRAPOL® STORMPROOF is expected to meet, which also has excellent fire resistant qualities. The CORRAPOL® STORMPROOF resin has a softening point in excess of 120°C. Most products extruded in polycarbonate and tested to BS476 Pt7 achieve a class 1(Y) rating. The international results depicted in the chart below show just how high a rating CORRAPOL® STORMPROOF has achieved worldwide. CORRAPOL® STORMPROOF is less flammable and has a higher melting point than fibreglass, acrylic or PVC sheets.

Flammability and Construction Standards

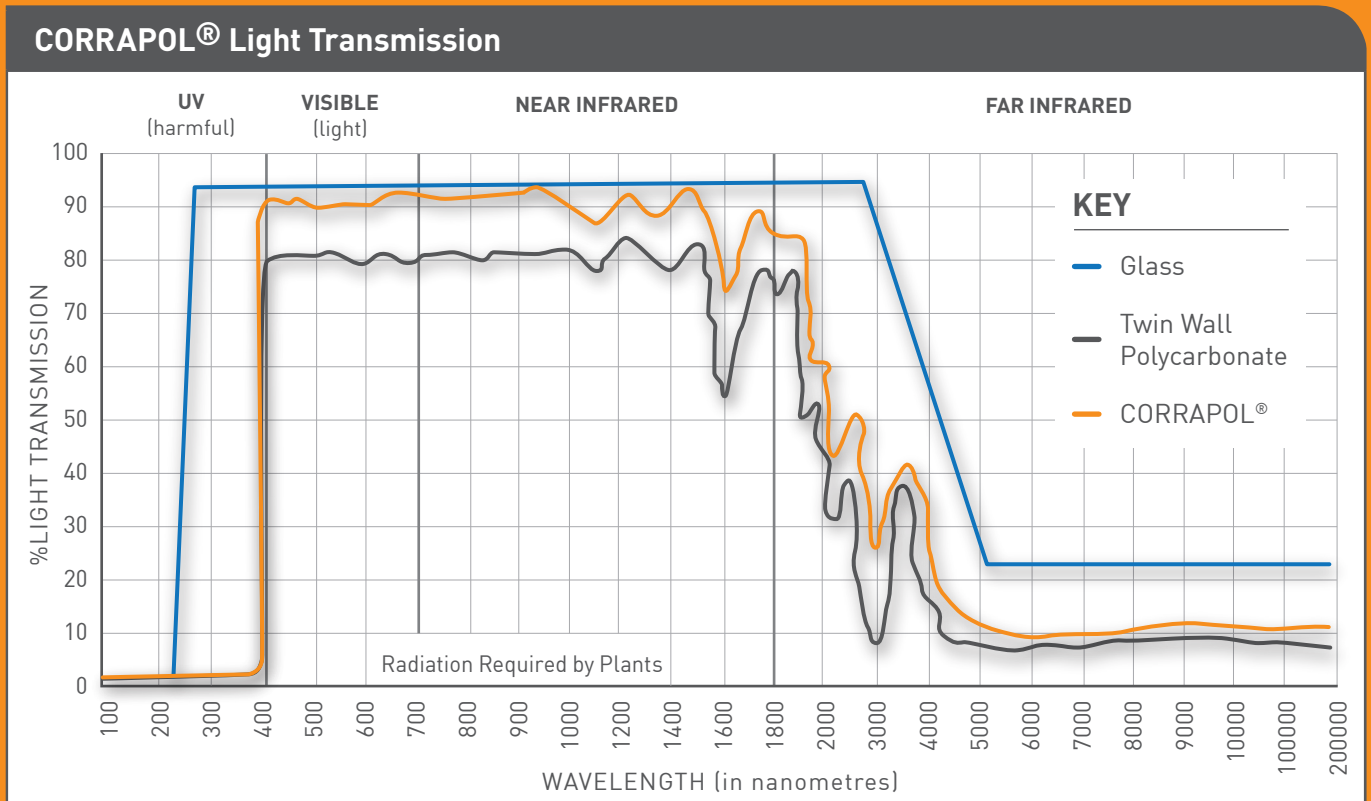
Standard	Country	CORRAPOL Thickness	Method	Designation or Rating
Flammability	France	0.8-1.0mm	NFP 92501 NFP 92504 NFP 92505	M-1
Flammability	Germany	0.8-1.0mm	DIN 4102	B-1
Flammability	Israel	0.8mm	I.S. 755	V 2 2
Flammability	Dade County FL-USA	0.8mm	ASTM D-1929	Meeting the South-Florida Building Code 806°F
			D-1929	1004°F
			D-635	45 Sec
			D-635	1.77 in
			E-84	6
			E-84	78
			D-638	[weathering]
Flammability	USA	0.8mm	UL: UL723	4.7 47.0
			ASTM D-1929	490°C @ 4:3min 530°C @ 2:15min
			ASTM D-635	3.0 cm/min 30(Burning rate)
Flammability	USA Los Angeles	0.8mm	Los Angeles Building Code	CC2 (Section 2603)
Hurricane Code	Dade County Florida, USA		AS2376-1980	Passed
Wind Load	Australia			Complies
Cyclonic Wind Load	Australia		AS 2424	Passed
Sandbag Impact testing	Australia		AS2424, AS 1562-3	Passed
TNO Hail Test	Netherlands		1999-CON-LBC/B7139/JNE	Passed
TNO Load Test (Pressure)	Netherlands		1999-CON-LBC/B7157/JNE	Passed

Typical Properties

W	Property	Conditions	ASTM Method	Units-SI	Value
Physical	Density		D-1505	g/CM³	1.2
	Water absorption	24hr.@23°C	D-570	%	0.15
Mechanical	Tensile strength at yield	10mm/min	D-638	MPa	62
	Tensile strength at break	10mm/min	D-638	MPa	65
	Elongation at yield	10mm/min	D-638	%	7
	Elongation at break	10mm/min	D-638	%	>80
	Tensile modulus of elasticity	10mm/min	D-638	MPa	2,300
	Flexural modulus	1.3mm/min	D-790	MPa	1,890
	Flexural strength at yield	1.3mm/min	D-790	MPa	93
	Notch impact strength izod	23°C	D-256	J/m	800
	Notch impact strength	23°C	D-256	J/m	800
	Impact falling weight		ISO-663/1 ^a	J	50
Rockwell hardness		D-785	R scale	118	
Thermal	Long term service temperature			°C	-50 to +100
	Short term service temperature			°C	-50 to +120
	Heat deflection temperature	Load: 1.82 MPa	D-648	°C	135
	Vicat softening temperature	Load: 1kg	D-1525	°C	150
	Co-efficient of linear thermal expansion		D-696	10 ⁻⁵ cm/cm°C	6.5
	Thermal conductivity		C-177	W/m K	0.21
	Specific heat capacity		C-351	kJ/kg K	1.3
Optical	Haze		D-1003	%	<0.5
	Light transmission		D-1003	%	90
	Refractive index		D-542		1.57
	Yellowness index		D-1925		<1
Electrical	Dielectric constant	1kHz	D-150		2.6
		1MHz	D-150		2.4
	Dissipation factor	1kHz	D-150		0.005
		1MHz	D-150		0.02
	Dielectric strength short time	500 V/s	D-149	kV/mm	20
	Surface resistance	Ketley	D-257	0hm	4.1x10 ¹⁵
Volume resistance	Ketley	D-257	0hm-cm	1.7x10 ¹⁷	

CORRAPOL® STORMPROOF : Light Transmission

CORRAPOL® STORMPROOF almost totally blocks harmful UV radiation whilst still allowing exceptional levels of visible light transmission. The graph below shows comparisons with other products.



CORRAPOL® : Range Selector Guide

	STORMPROOF	PVC	GRP	BT
LONG LIFE SPAN	✓			
IMPACT RESISTANT	✓			
UV PROTECTED	✓			
HIGH STRENGTH	✓		✓	
LIGHT TRANSMISSION	✓	✓		
LIGHTWEIGHT / EASY-TO-CUT	✓	✓	✓	✓
LOW COST		✓	✓	✓
RIGID			✓	✓
PROVIDES PRIVACY			✓	✓

CORRAPOL®-PVC : DIY Grade Sheets

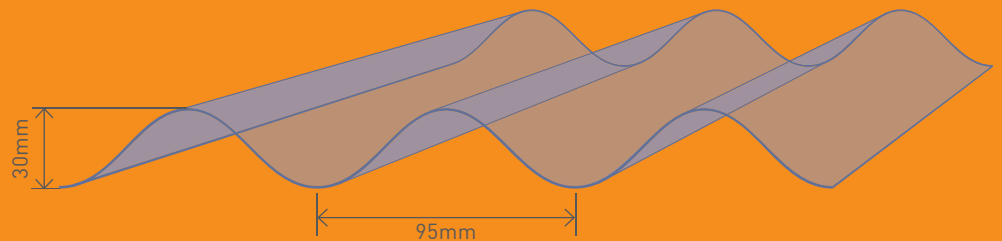
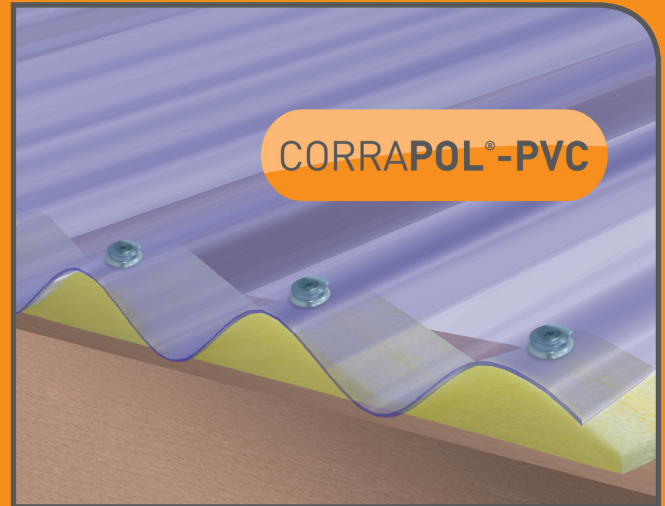
Whilst not as strong or as long lasting as the CORRAPOL® STORMPROOF range, CORRAPOL®-PVC DIY Grade Sheets offer a lower cost and are ideal for areas where impact resistance is not important and also where direct sunlight is limited. In areas like this, the CORRAPOL®-PVC DIY Grade range provides an excellent solution and will provide an excellent waterproof solution with good light transmission.

Key Benefits:

- ✓ Low Cost
- ✓ Maintains Great Light Transmission
- ✓ Allows a Degree of Visibility Whilst Retaining Privacy
- ✓ Lightweight
- ✓ Ideal for DIY

Common Uses:

- ✓ DIY Projects
- ✓ Lean-tos



CORRAPOL®-GRP : Polyester Translucent Sheets

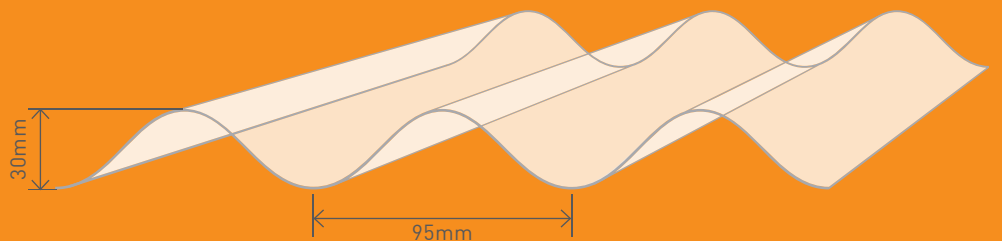
This type of CORRAPOL® provides excellent strength, similar to that of the CORRAPOL® STORMPROOF range, however the light transmission is lower due to the fibres in the resin mix. Where areas where direct sunlight is relatively low, the CORRAPOL®-GRP Translucent Sheets are an excellent solution with high impact strength and excellent rigidity.

Key Benefits:

- ✓ Provides Privacy
- ✓ Maintains Great Light Transmission
- ✓ Allows a Degree of Visibility Whilst Retaining Privacy
- ✓ High Strength
- ✓ High Rigidity

Common Uses:

- ✓ Agricultural Buildings/Barns
- ✓ Garages



CORRAPOL® : Installation Guide

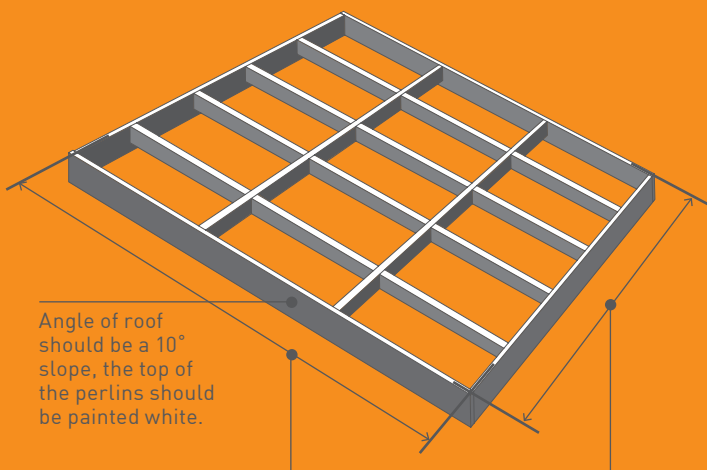


Tools required



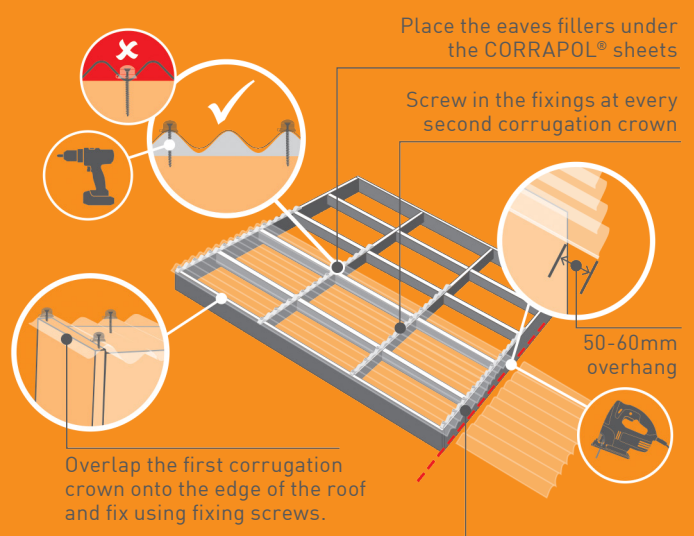
Installation

1 Take all **MEASUREMENTS** of the roof



2 Install the **FIRST** CORRAPOL® sheet and eaves fillers

TOP TIP – To keep the roof watertight and weatherproof, make sure you **always fix through the corrugation peak and not the trough.**

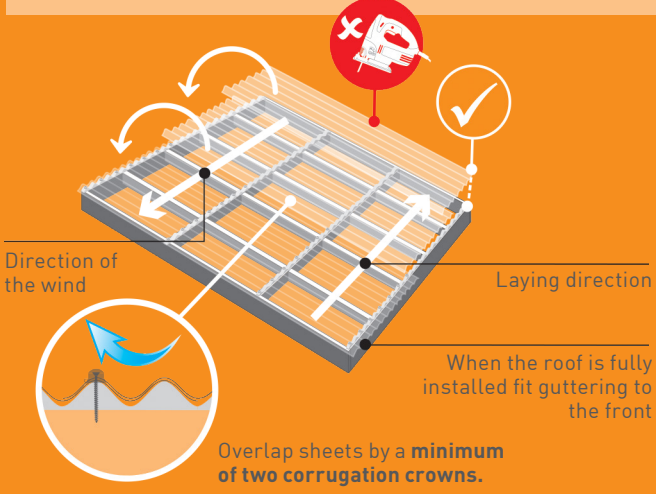


Measure roof and CORRAPOL® sheeting, clamp panel down and cut the excess with a fine tooth bladed Jigsaw allowing for an overlap of 50-60mm.

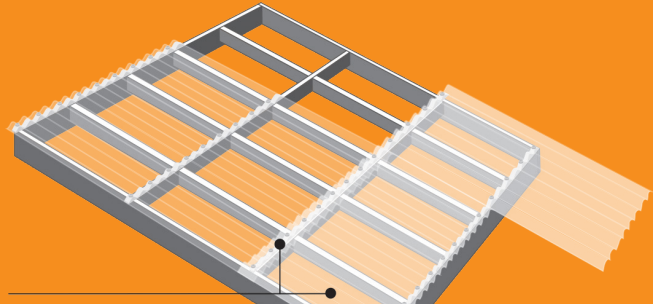
CORRAPOL® : Installation Guide continued

3 Install **REMAINING** CORRAPOL® sheet and eaves fillers

TOP TIP – To **avoid verticle cuts**, **overlap** the CORRAPOL® sheets by more than 2 corrugation crowns to the **EXACT** match of the roof dimensions.

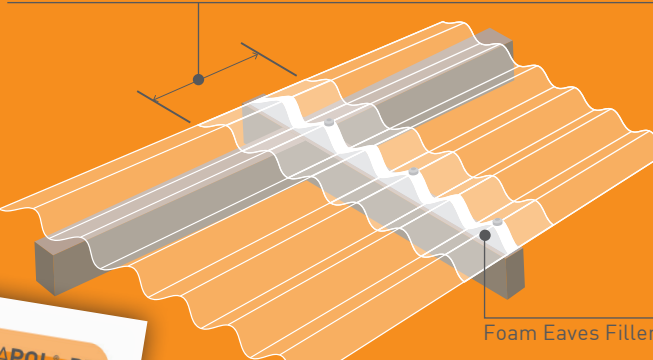


4 Instalation of larger roofs – **OVERLAPING OF SHEETS**



Measure and cut-to-size the extra sheeting required, place under the top sheet and screw fixings through both layers of the CORRAPOL® at every second corrugated crown.

JOINING SHEETS (END TO END): If sheets need to be joined end to end, **ensure an over lap of at least 150mm for a 10° slope or 300mm for a 5° slope.**



CORRAPOL®-BT

The CORRAPOL®-BT range is available in four colours and the profile matches the CORRAPOL® STORMPROOF high profile, the CORRAPOL®-PVC and the CORRAPOL®-GRP ranges meaning you can create a wide variety of roof solutions. Please request the CORRAPOL®-BT brochure for more information.



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