Euronit

UrbanPro Fixing Guide

Fibre cement profiled sheeting

UrbanPro

Formerly under the name of Tegral, Euronit have been manufacturing agricultural sheeting, specifically designed for Irish farmers and our unique climate, for over 80 years at our factory in Athy, Co. Kildare. We have been the farmer's choice for generations when it comes to farm buildings and proud to have been part of protecting your greatest assets – your livestock, produce and equipment for decades.

UrbanPro takes all our heritage and experience in fibre cement and brings it into a new context. Sitting between our existing profile sizes UrbanPro is the perfect scale for the domestic, equestrian, light industrial and commercial sectors.

Available in Natural Grey and Black, UrbanPro could be the ideal material for your building envelope.

With its excellent cover width installation is faster and more cost effective than ever. Comparatively light weight at only 15.2kg/m2 and with a class A2-d1,s0 reaction to fire it offers a very wide design scope.

Contents

Benefits of UrbanPro

UrbanPro is a semi-compressed fibre cement sheet which is easy to handle and suitable for small structures in the equestrian, industrial and domestic sectors such as housing, garages, general purpose sheds and smaller buildings.

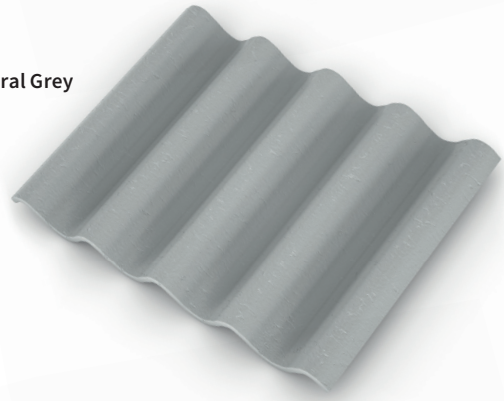
Key benefit		Euronit Semi-compressed fibre cement
Moisture absorption* 	Ability to absorb up to 25% of its dry weight in moisture, minimising condensation. Fully compressed absorbs only 15%	✓
Single source supply 	Stainless steel coastal fixings designed for semi-compressed sheet	✓
Longevity 	Rust, rot and corrosion resistance in excess of 50 years	✓
Insulation 	The thermal and acoustic properties of fibre cement are better than those of other commonly used single skin sheets, resulting in improved well-being and productivity.	✓
Performance 	Meets highest strength required to BS EN 494 Fire performance Class A2 to BS EN 13501-1, SAA and Class 0	✓
Variable pitches 	Min 7° pitch – can be used as vertical cladding	✓
Sheet size availability 	**Painted and Natural Grey** 1250mm 1750mm 2500mm	✓

*Absorbency percentages are subject to normal wear and tear over product life

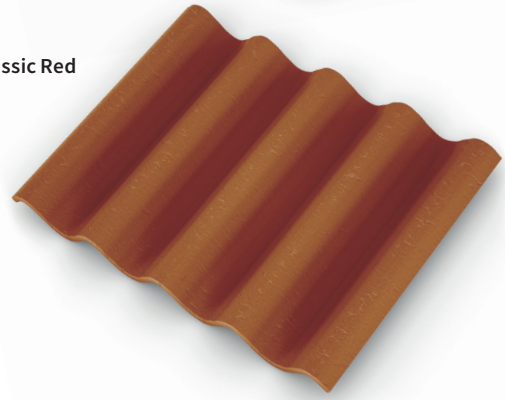
Colour range

Black

Natural Grey

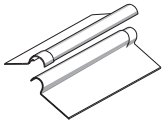
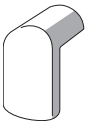
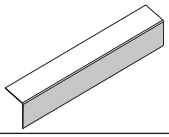


Classic Red



Fittings

UrbanPro

	Two Piece Plain Wing Ridge	1050mm cover width 310mm wing
	Finial	220mm width 395mm length
	External Corner	2500mm length 300mm wing

Stainless steel A2 wood fixing

Our 130mm wood stainless steel fixing, fills a much needed industry gap and is capable of resisiting years of corrosion from salt, chemicals or coastline environments.

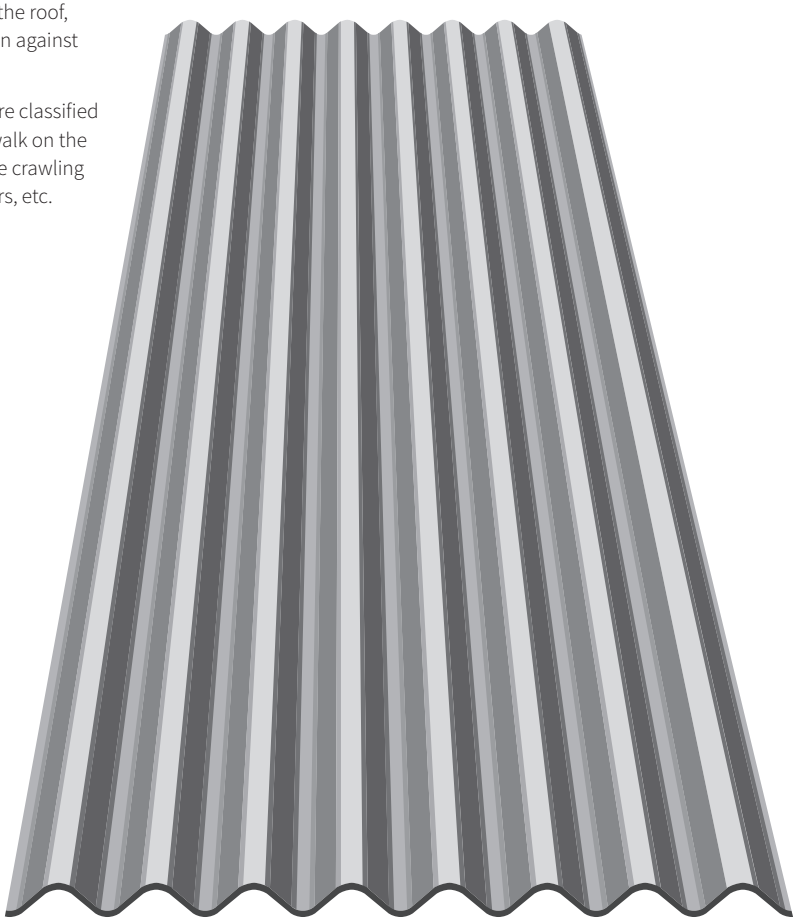
This is an exciting, premium product to hit the market which will protect the quality and value of your customers' builds.

UrbanPro Technical

UrbanPro and safety in roof work

The recommendations of HSG 33 should be followed at all times: Fitters of UrbanPro must at all times use scaffolding platforms, planks or ladders and these must not lean directly against the corrugated sheets. Safety structures must cover the entire working area, including many building elements (load bearing structures must be used), and must be arranged in such a way that both ends are firmly held in place and a lever effect is avoided. When relocating safety measures to the next work area on the roof, fitters must not lean against the roofing.

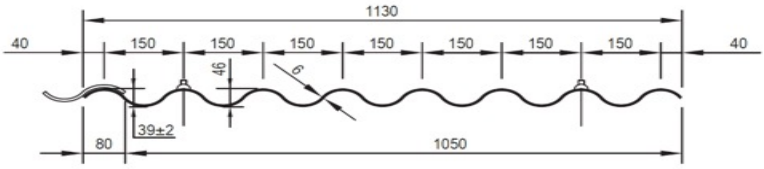
UrbanPro sheets are classified as fragile. Do not walk on the sheets – always use crawling boards, roof ladders, etc.



UrbanPro sheet lengths (mm)

1250, 1750, 2500

The lower profile of this product makes it particularly suitable for a range of domestic, equestrian and light industrial buildings. It can be laid to a minimum roof pitch of 7°.



Technical data

	UrbanPro
Overall width	1130mm
Net covering width	1050mm
Thickness (nominal)	6.0mm
Density (nominal)	≥ 1400kg/m3
Pitch of corrugations (nominal)	150mm
Depth of profile	40mm
Profile height category	B
Side lap	80mm
Minimum end lap	150mm
Maximum purlin centres	1000mm
Maximum rail centres	1350mm
Maximum unsupported overhang	250mm
Approx. weight of roof as laid, with 150mm end laps, single skin including fixings	15.2kg/m^2
Minimum roof pitch	7°

Exposure

For technical advice email:
support.ireland@euronit.world

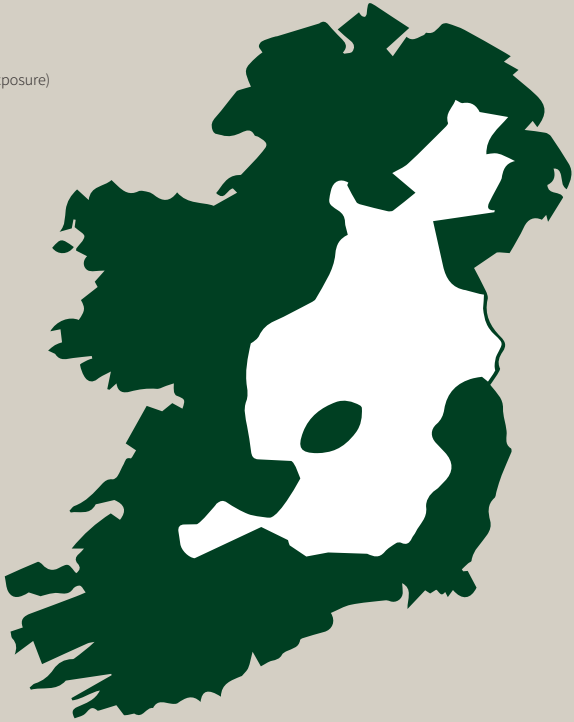
When using profiled sheeting the windloadings and the driving rain of a location are critical to ensure the optimal sealing requirements.

Exposure zones

Approximate wind driven rain (litres/m^2 per spell)

Less than 56.6 (Moderate exposure)

Equal to or greater than 56.5 (Severe exposure)



Note: When buildings stand above their surroundings or are situated in open country with no windbreaks, within 5km of the sea, they should be considered subject to severe exposure conditions. Source: SR82.

Lap

This describes how much one sheet overlaps another at either the end (end lap) or the side (side lap).

Pitch

This describes the degree to which the roof slopes.

Guidance procedure

Step 1: Exposure:
Determine the expected degree of exposure by examining the adjacent map.

Step 2: Centres of support:
For UrbanPro: Purlins at 1000mm c/c for wind suctions of 1.89kN/m^2. Rails at 1350mm c/c for loadings up to 1.40kN/m^2.

Step 3: Lap and seal:
Establish requirement for lapping and sealing by reference to the exposure zones map of Ireland and the table below.

Sheltered and moderate sites

Less than 56.5 l/m^2 wind driven rain per spell

Minimum Roof pitch	End lap (mm)	Lap treatment End laps	Side laps
22.5° and over	150	Unsealed	Unsealed
15° and over	300	Unsealed	Unsealed
15° and over	150	Sealed	Unsealed
7° and over	150	Sealed	Sealed

Moderate and severe sites

More than 56.5 l/m^2 wind driven rain per spell

Minimum Roof pitch	End lap (mm)	Lap treatment End laps	Side laps
25° and over	150	Unsealed	Unsealed
17.5° and over	150	Sealed	Unsealed
15° and over	150	Sealed	Sealed
7° and over	300	Sealed	Sealed

On roofs over 10° pitch where parapets might allow snow build up, 300mm double sealed end laps and single seal side laps are recommended.

Installation

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Topfix fasteners

Self-drilling, self-tapping 'topfix' fasteners are generally used to fix UrbanPro sheets to the purlins.

These fasteners drill through the profile sheet, creating a 2mm oversize hole and self tap into the purlin. It is important that the fasteners are installed using the correct power tools, which should have an adjustable depth setting device to ensure the washers are seated correctly.
The fasteners typically have different drill points to suit the different purlin types:

When following the recommendations of the fastener manufacturers, please give particular regard to minimum purlin thickness and maximum roof pitch.

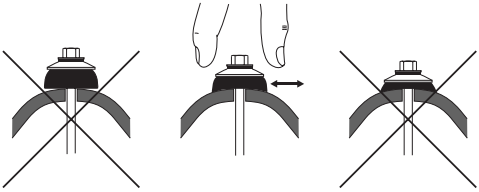
Fixing

The correct fixing of a sheet is important in order to avoid premature failure, corrosion or leaks in a roof. Many factors influence the fixing of a roof, such as the purlin or rail type and the nature of the roof in question. Particularly important is the type of fastening system used and compliance with the manufacturer's recommendations.

Profiled sheeting self-drilling fixings are generally used to fix UrbanPro sheets on a roof as they provide a quick and effective one step fixing operation. Follow the recommendations of the fastener manufacturer regarding maximum roof pitch, minimum purlin thickness etc.
Profiled sheeting self-drilling fixings should be installed using the recommended depth setting power tool to ensure the fasteners are correctly tightened.

Checking the profiled sheeting self–drilling fixings for tightness

Where profiled sheeting self-drilling fixings are not used, 8mm diameter fasteners are used for UrbanPro. The fibre cement sheet must be pre-drilled with a 2mm clearance hole.

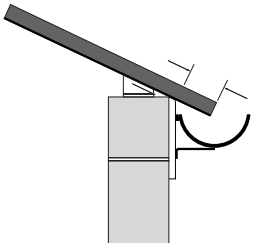


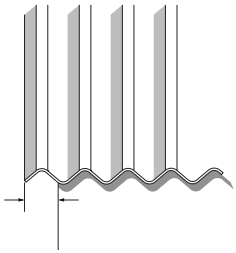
Sealing requirements

If using drive screws, the holes must be located centrally on the purlins, if using hook or crook bolts, the holes should be 4mm upslope of the back edge of the purlin. In all instances, sealed washers and caps should be utilised to ensure adequate weather protection.

Overhangs

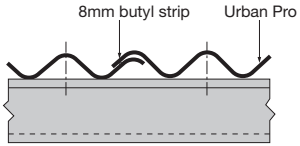
Sufficient overhangs must be allowed at the eaves to ensure that rainwater discharges into the gutter. Verges must be overhung by one complete corrugation unless a bargeboard is used.





Side Laps

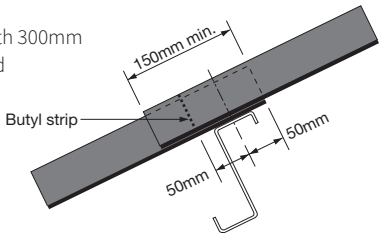
Sealing: Where appropriate, butyl strip sealant should be positioned as shown. Use 8mm diameter butyl strip.



End Laps

The minimum end lap for UrbanPro is 150mm, fixed as shown in the section below.

Where double sealing is necessary with 300mm endlaps, the second butyl strip should be positioned 100-200mm below the fixing.



Setting out of the roof

Checking the structure

Before sheeting is commenced, the structure should be checked to ensure that all purlins and rails are in a true plane, correctly spaced and securely fixed and adequately restrained.

Laying the sheets

All UrbanPro sheets are pre-mitired ready for sheeting right to left only.

Roof sheeting for UrbanPro sheets should commence from the right hand side of the building at eaves level, rising in vertical tiers, one sheet wide, from eaves to ridge.

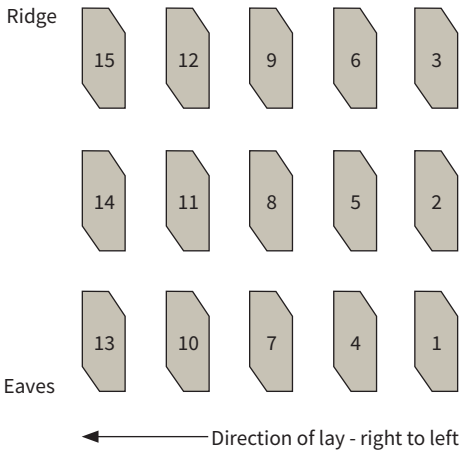
The end laps of each row of sheets should form a continuous straight line from gable to gable and must not be staggered. Similarly, the side laps should be aligned from eaves to ridge.

Note: Mitres must not be cut in situ.

Mitring

UrbanPro sheets are factory mitred, meaning the sheets can only be laid right to left on both roof slopes at 150mm end lap.

Mitring is required to avoid four thicknesses of sheeting at the junctions of side and end laps, it is necessary for two of the sheets at each junction to be mitred at the corners so that they lie in the same plane.



If sheets need to have hand cut mitres made due to premitred sheets needing trimming to length or the lap is greater than 150mm then the following rules apply. The width of the mitre measured from the corner of the sheet as dimension “b” below is always 85mm and is a true horizontal dimension. Therefore if you are recutting the mitres due to increase in lap this dimension does not get altered.

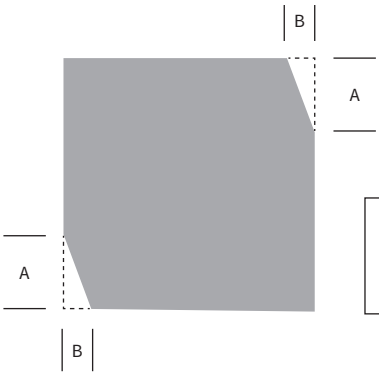
The length of the mitre measure again from the corner of the sheet along the length of the sheet, as dimension 2a2 below, is the lap dimension plus 5mm. i.e for a 150mm lap it is 150 +5 = 155mm and for a 300mm lap it would be 300 + 5 = 305mm. Therefore if you are recutting the mitres due to increase in lap, align the 155mm mark on your tap measure or measuring rule with the end of the current precut mitre, to ensure your tap/rule is correctly aligned to where the corner of the sheet would of been.

Now remark the new end of mitre position. The new mitre cut is from this mark to the current end of the mitre on the width of the sheet.

Ideally, the gap between mitres should be a minimum of 3mm to a maximum of 6mm. Box mitres must be avoided.

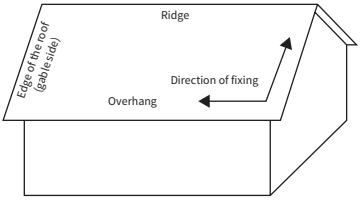
The mitred joint is covered top and bottom by the other two sheets and is thus weatherproof and unseen.

(See typical mitring details below.) Note: Mitres must not be cut in situ.



A – 155mm
(lap length + 5mm)

B – 85mm
(unaltered regardless of lap length)



Mitring when sheets are layered from the right to the left

Working with UrbanPro

Storage and handling

General: Profiled sheets should be stored as close as practically possible to the area of works, on a firm level base, using the profiled bearers (on which the sheets are delivered) to raise the sheets off the ground. Sheeting stacks should generally not exceed 1200mm high unless a level concrete base is available, in which case the maximum height is 1500mm. A separate stack should be made of each length of sheet; if this is not possible, stack with longest sheets at the bottom and the shortest at the top. It is important when stacking UrbanPro sheets on site that the smaller 'under rolls' are all on the same side of the stack. Sheets should always be stored weather (smooth) side upwards.

Stacks of sheets should not be stored in full sun during the summer months as the differential temperature across the sheets can result in unacceptable stresses in the sheets and can lead to edge cracking.
If sheets are to be retained in the packs for more than 3 months, they should be stored inside a building where they can be protected from extreme variations in temperature and moisture.

Ingress of moisture into packs of profiled sheets may cause efflorescence staining, bowing during installation or permanent distortion.

When handling sheets, lift by the ends only.

Natural Grey sheets: The plastic wrapping should be retained for as long as possible to control the environment around the sheets. Once the pack has been opened, or if the wrapping is damaged and allowing the ingress of water, the sheets should be stored under cover.

Coloured sheets: Coloured sheets should be stored under cover at all times, preferably inside a building, but if this is not available they can be stored under a tarpaulin. The tarpaulin should be spaced off the top and sides of the sheets to allow effective air circulation and avoid condensation.

The plastic wrapping on coloured sheets is only designed to protect the sheets in transit. It should be removed and carefully disposed of as soon as possible.

Working: When cutting fibre cement sheets, try to eliminate the exposure to dust (refer to Euronit Health and Safety data sheet).

Preferably sheets should be cut at ground level on suitable rigid supports using hand or powered saws. Powered saws should be of the reciprocating saw type and NOT disc or circular blade devices. Experience has shown that hand or powered saw blades having 3-3.5mm tooth pitch are most suited.

Preparation: Prior to sheeting, a responsible person should check that all purlins and rails are connected securely. Measurements should be taken to ensure that the structure and purlins are true and level to receive the sheeting. In particular, a check should be made that the purlins are spaced correctly for the right end lap, and that the eaves purlin provides an overhang into the gutter not exceeding 250mm. When the sheeting layout is being planned, care should be taken to ensure that the verge sheets are cut so that the outside edge coincides with a crown rather than a trough in the corrugations. This enhances the weather protection and can reduce the width of the flashings.

CDM Regulations: Specifiers have an obligation under the Construction (Design and Management) Regulations 2015 to identify and evaluate the health and safety implications of all products and construction methods required by their design.

Installation

The following guidelines should always be observed:

- Sheets should be installed smooth surface up.
- All fixing holes should be drilled, not punched, and adequate clearance 2mm minimum) provided for the fixing shank.
- There should be two fixings per sheet per purlin or fixing rail at the point shown on page 7.
- Always lay the sheets in vertical tiers from the eaves to the ridge.
- Always fix sheets fully before moving on.
- To minimise dust, cut sheets with a handsaw or slow speed reciprocating power saw. The use of angle grinders is not recommended.
- Avoid deflecting a sheet whilst attempting to force a bearing.
- Do not step on side lap corrugations.
- Where regular access is required to reach roof lights, ventilation and service ducts, properly constructed walkways should be provided.

Health & Safety

Republic of Ireland: 'Code of Practise for Safety in Roof Work' 2016, published by the Health and Safety Authority.

Northern Ireland: 'Health and Safety in Roof Work' (HSG 33), published by the Health and Safety Executive, and the Work at Heights Regulations (Northern Ireland) 2005.

Safety at work

The recommendations of HSG 33 should be followed at all times:

- A safe place of work should be provided.
- Health and Safety Provisions should comply with current regulations and be suitable for working at height. The use of safety nets as fall arrest equipment should always be considered.
- Always use HSA recommended roof access systems whenever required.

Euronit

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