



INSTALLATION INSTRUCTIONS

LINER PROFILE — 20/1000

Applies to Briarwood 20/1000 liner profile, with swages, Forward and Reverse, in White and Black Polyester

How to fix Briarwood 20/1000 liner profile sheets: as the inner skin of a twin-skin roof or wall, and as a ceiling or under-purlin lining. The liner is never the outer sheet.

1. Safety

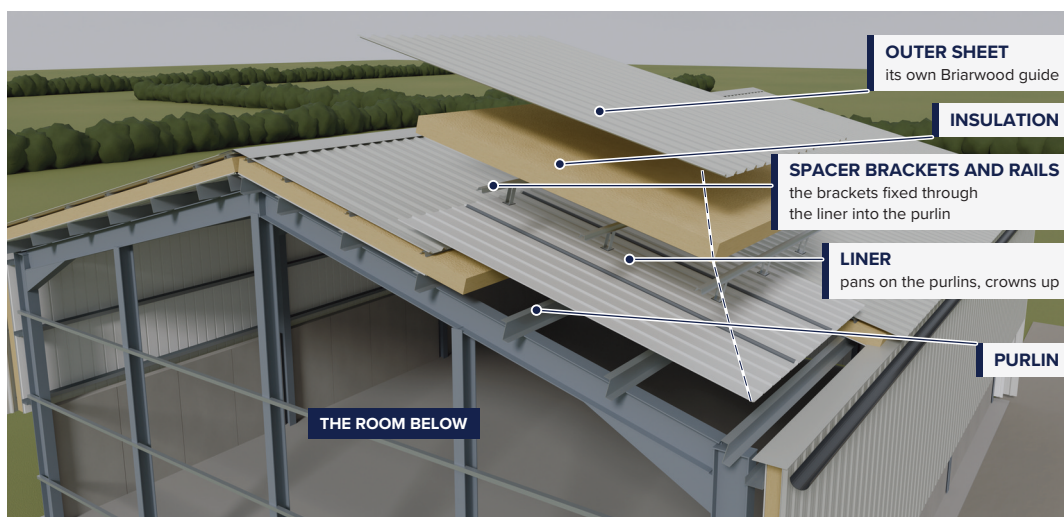
- Two people to a sheet, always. A sheet is sharp along every edge, flexible along its length and a sail in any wind.
- Clean gloves with a grip. No watches, buckles or loose tools against the coated face.
- Stop sheeting in high or gusting wind. A sheet that lifts at height cannot be held.
- The liner is not a working platform: never stand, kneel or walk on it, fixed or unfixed. Work from staging, boards that span the purlins, or a platform, under the site's safe system of work.
- Until it is fixed, the liner does not restrain the purlins. Land packs over a rafter line, never mid-span, and fix every sheet fully as it is laid.

2. The twin-skin build-up

In a twin-skin roof or wall the liner is the inner skin: it carries the insulation, it is the air seal, and it restrains the purlins. This note covers the liner in full. The spacer system, the insulation and any vapour control layer are for the system designer; the outer sheet has its own Briarwood installation guide.

The twin-skin roof, layer by layer

Liner profile, 20/1000
White or Black Polyester



The liner is the inner skin: it carries the insulation, it is the air seal, and it restrains the purlins.

Bottom to top: purlin, liner, spacer brackets and rails, insulation, outer sheet. The spacer system, the insulation and any vapour control layer are for the system designer.

The layers are drawn pulled apart at one corner so each can be seen. Spacer, insulation and tape are drawn generic.

1. Fix the liner fully and seal it: every fixing in, every side lap taped, every end lap sealed, the perimeter sealed.
2. Sweep the swarf off the liner before anything goes on it.
3. If the designer calls for a separate vapour control layer, it goes on the liner now, before the spacer brackets.
4. Fix the spacer brackets through the liner into the purlins or rails, as the Fixing section sets out.
5. The insulation goes in, to the system designer.
6. The outer sheet goes on, to its own Briarwood installation guide.

3. Before you lay

A profiled sheet is stiff along its length. It will not straighten a structure that is out of line; it will follow it, and every sheet after it will follow the first.

1. Check the purlins, rails or joists are in plane, at the centres the design calls for, and square. Tighten every structural bolt before the liner goes on: a bolt tightened later can break the liner seals.
2. Establish the prevailing wind for the site. The liner is laid the way the outer sheet will go, so the whole build-up moves one way.
3. Check the delivery against the delivery note for configuration, colour, gauge and length before anything goes up. A wrong length is cheap to resolve on the lorry and expensive on the purlins.
4. Have the sealing materials on site before the first sheet goes up: butyl over-joint lap tape, butyl sealant strip, liner fillers, and White or Black headed fixings. They are supplied by others; this note names the type, never a size or a brand.

Which way up

Forward: the liner is laid on the purlins, or on the outside of the rails, with the pans on the support and the crowns up. Reverse: the liner is fixed under the supports as a ceiling, with the pans against them. Forward and Reverse alike: colour side up, as shown on the profile drawing.

4. The order of laying

Lay the liner from the gable at the end away from the prevailing wind, run by run, the way the outer sheet will go. Keep the liner only as far ahead as can be fully fixed and sealed that day.

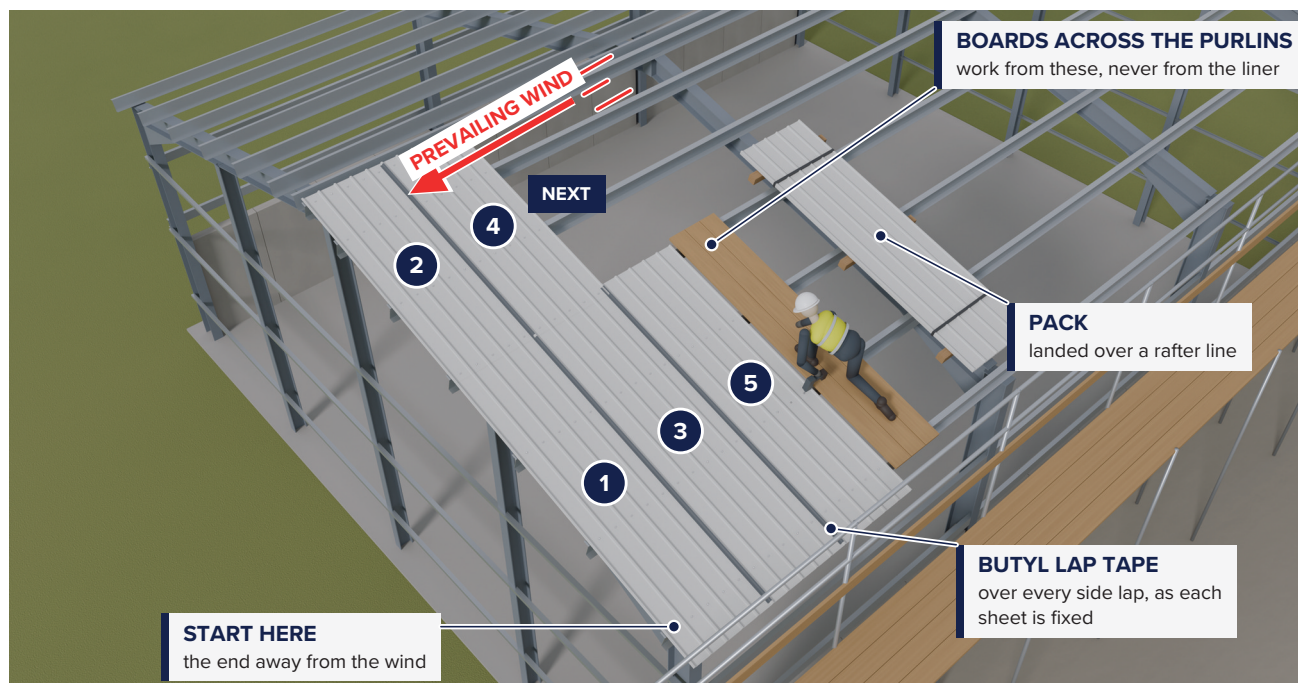
1. Fit and seal the internal perimeter pieces first: the internal flashings or trims at eaves, ridge and verge.
2. Set the first sheet at the gable, crowns up and colour side up, as shown on the profile drawing, square to the purlins. Fix it fully before the next sheet goes on.
3. Lap the next sheet one crown over the last, tape the side lap and fix the sheet fully.
4. Where a run needs a second sheet, lap the upper sheet over the lower on a purlin, as the Laps section sets out.
5. Work run by run from staging or from boards that span the purlins, never from the liner.

NEVER PART-FIX THE LINER

A part-fixed liner restrains nothing and lifts in the wind. Fix every sheet fully as it is laid, and leave nothing unfixed at the end of the day.

Laying the liner on the purlins

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White or Black Polyester



Lay from the end away from the prevailing wind, one run at a time, the same way the outer sheet will go.

Fix each sheet fully and tape its side lap as it goes on. The liner is not a working platform: never stand, kneel or walk on it, fixed or unfixed.

The sheets not yet fixed are shown lifted over the place they go.

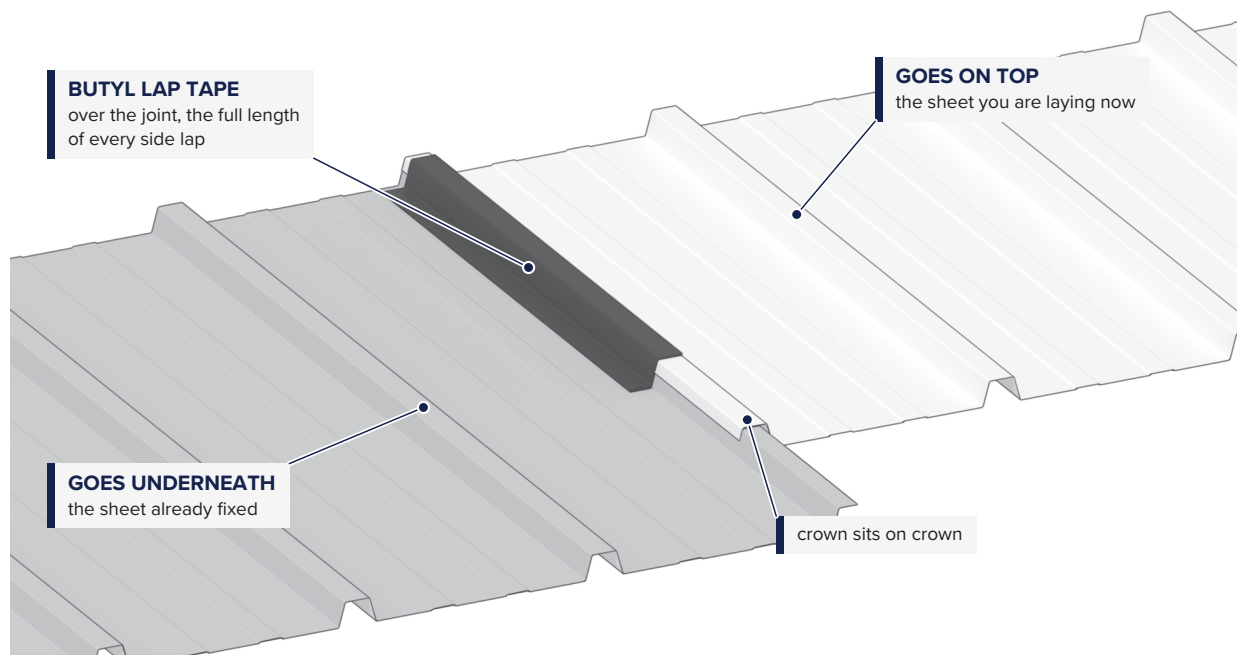
5. Laps

Side lap by one crown, crown on crown. In a twin-skin build-up, tape every side lap from above: one strip of butyl over-joint lap tape over the joint, laid as each sheet is fixed and carried across any end lap without a break.

The liner is not stitched as standard. Only where a fire specification asks for it, stitch the side lap through the lap crown with 22 mm stitcher screws at 400 mm maximum centres.

Liner side lap

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Seal every side lap with butyl lap tape over the joint.

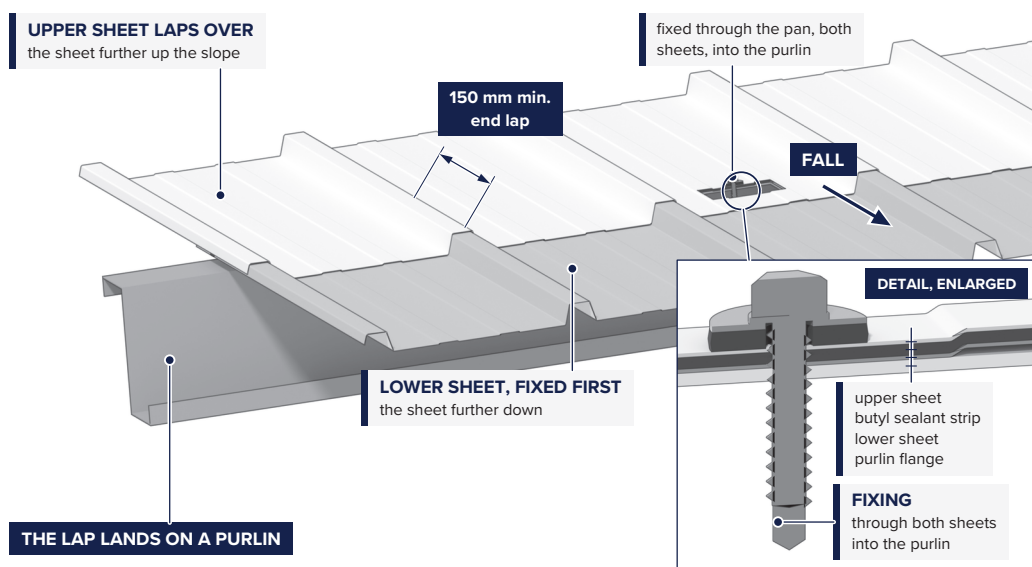
The new sheet's edge crown sits on the edge crown already fixed. Lay the tape over the joint along the full length of the lap. No stitchers as standard: add them only where a fire specification asks for them.

The tape is drawn to show where it goes, not its size.

Make every end lap on a support, the upper sheet over the lower, with a minimum lap of 150 mm, fixed through both sheets, with one strip of butyl sealant across the lap on the fixing line, the fixings through it. On a wall the upper sheet goes on the room side. Every end lap takes at least 150 mm out of the sheet length, so allow for it when the sheets are measured and ordered.

Liner end lap on a purlin

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Make every end lap on a purlin and seal it.

The upper sheet laps over the lower, 150 mm minimum. Lay a butyl sealant strip across the lap on the fixing line, so the fixings pass through it, and fix through the pan and both sheets into the purlin.

The detail is enlarged. The sealant strip is drawn to show where it goes, not its size.

6. Fixing

Fix through the centre of the pan, in every pan: five fixings per sheet at every support, on roof, wall and ceiling alike. Never through a crown. Fix on a flat part of the pan, clear of the swages. Fix the liner fully in its own right before any spacer bracket goes on. Where the heads will be on show, use White or Black headed fixings to match the liner. Support spacing and fixing length: follow the project specification.

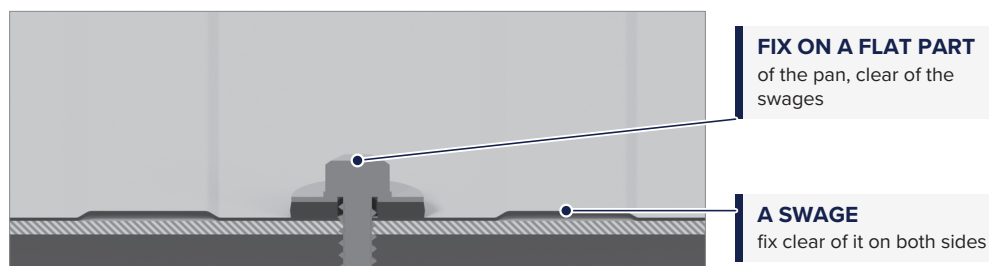
A fixing in every pan, at every support

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One sheet on a purlin: a fixing at the centre of each of its five pans, and none in a crown. The inset shows the swages in a pan.



THE SWAGES



Primary fixings: a fixing in every pan at every support, five to a sheet.

At the pan centre, on a flat part of the pan, clear of the swages. Support spacing and fixing length: follow the project specification.

- Where the liner is fixed to preservative-treated timber, put a PVC barrier tape on the timber face first. The preservative attacks the coating from the back.
- Keep copper, lead and other dissimilar metals off the sheets and out of the run-off onto them. They corrode the coating where they touch it or wash over it.

Setting a fixing

1. Set the fixing square to the sheet. Driven at an angle it cannot compress the washer evenly and will not seal on the low side.
2. Drive it until the washer is evenly compressed and just begins to extrude from under the head. Stop there.
3. Never force a sheet onto a fixing. If it does not sit without persuasion the setting-out is wrong, and forcing it shows later as distortion.
4. Check the washers, fixing by fixing, while the access is still up. An over-driven and an under-driven fixing look the same from the ground and fail for opposite reasons; the washer is the only reliable check.

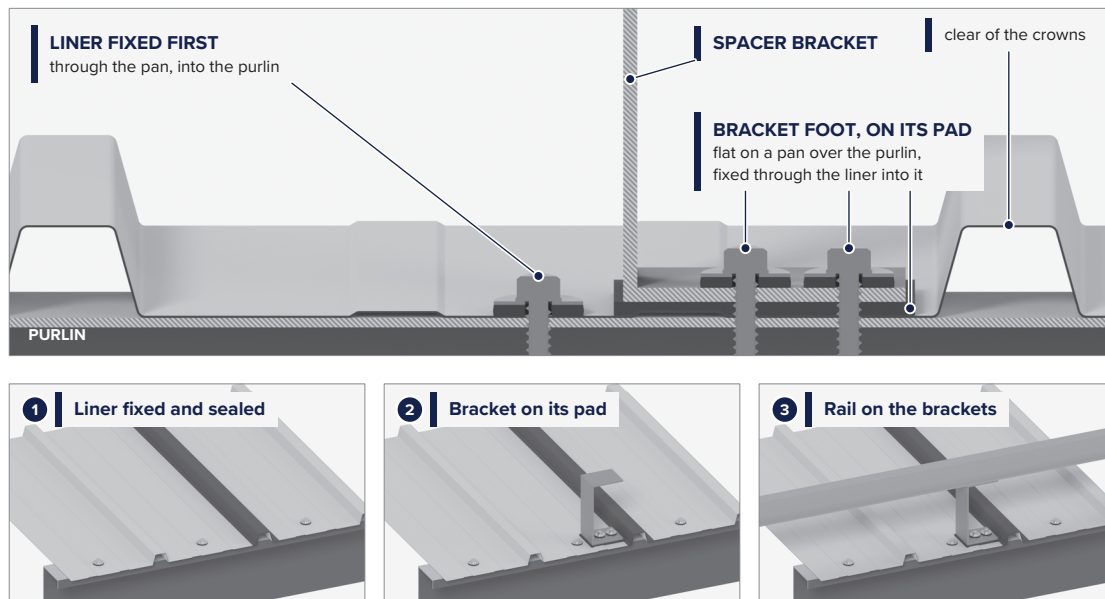
Spacer brackets

Spacer brackets go on after the liner is fixed and sealed. Sit each bracket foot flat on a pan over the purlin or rail, clear of the crowns, on its pad, and fix it through the liner into the support. The bracket type, depth, centres and fixings come from the spacer system.

Spacer brackets go on after the liner

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Fix the liner fully in its own right first. Then sit each bracket foot flat on a pan over the purlin, clear of the crowns, on its pad, and fix it through the liner into the purlin.



Fix and seal the liner, then the brackets, then the rails.

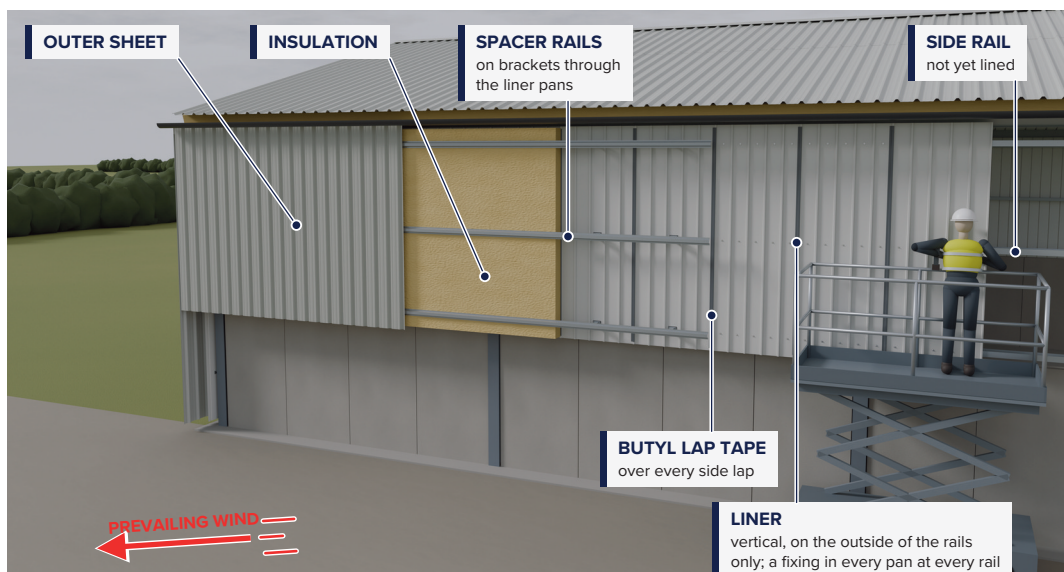
The bracket type, depth, centres and fixings come from the spacer system. Support spacing and fixing length: follow the project specification.

7. Walls

On a twin-skin wall the liner runs vertically, on the outside of the rails only, with the pans on the rails. Start at the corner at the end away from the prevailing wind and work run by run, the way the outer sheet will go, from a mobile elevating work platform.

The twin-skin wall

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Start from a corner and lay each run vertically on the outside of the rails, from the end away from the prevailing wind, the same way the outer sheet will go.

Fix through every pan at every rail, five per sheet. Tape every side lap, and seal the liner to the corner trims and the cill.

Spacer, insulation and tape are drawn generic. The outer sheet has its own Briarwood guide.

Fix through every pan at every rail, five per sheet. Use full-height sheets where you can; where an end lap is needed, make it on a rail, 150 mm minimum, with the upper sheet on the room side. Tape every side lap, and seal the liner to the corner trims and the cill.

8. Ceilings

The liner makes a ceiling or an under-purlin lining, fixed Reverse under purlins, joists or battens: pans against the supports, colour side up, as shown on the profile drawing. The supports must run across the crowns. Check the structure can carry the ceiling, and any insulation that will rest on it. Support spacing and fixing length: follow the project specification.

1. Work from a mobile elevating work platform or a podium, never a ladder.
2. Two people to a sheet: support it along its length until it is fixed.
3. Offer the sheet up with the pans against the supports and the colour side up, as shown on the profile drawing, and fix from below through every pan at every support, five per sheet.
4. Wear eye protection when drilling overhead: the swarf falls. Wipe it off the sheet straight away.
5. Make end laps on a support, 150 mm minimum, fixed through both sheets. Where the building needs the ceiling sealed, put the seal inside the lap, never as tape on the face seen from the room.

Fixing a ceiling from below

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Offer the sheet up and fix it from below.

Pans against the supports, five fixings per sheet at every support. Make end laps on a support, 150 mm minimum, fixed through both sheets. Wear eye protection when drilling overhead, and wipe the swarf off the sheet straight away.

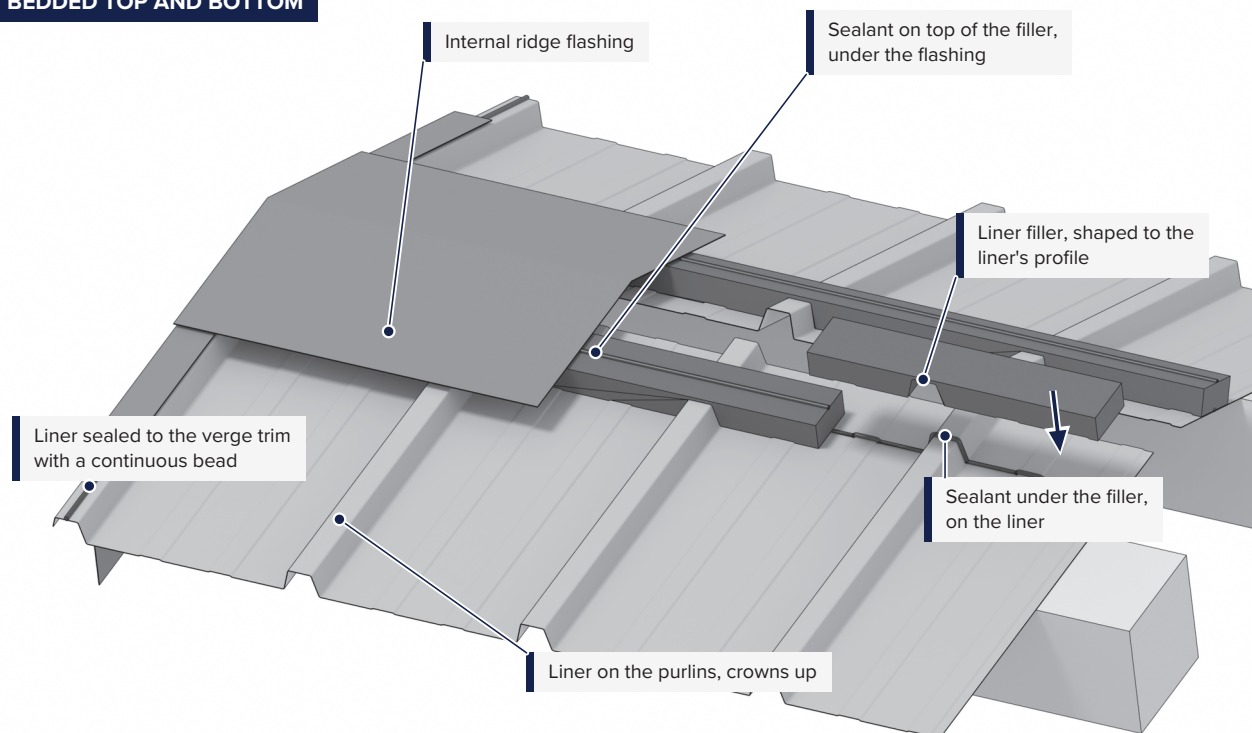
9. Finishing the edges

- Fit liner fillers at every open end of the profile, at eaves and ridge, bedded in sealant top and bottom.
- Seal the liner to every trim: verge, corner and cill.
- Seal round every penetration.
- Fix internal trims with rivets or sealed fixings, so that no fixing head opens the seal.

Sealing the perimeter

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BEDDED TOP AND BOTTOM



Liner fillers are bedded on sealant top and bottom, and the liner is sealed to the verge trim.

Shown at the ridge, with the insulation and outer sheet cut away. The liner filler follows the liner's own profile: solid in every pan, flat face up under the internal ridge flashing.