

Bayonet BayoWrap
Self Support Roof 03

Installation Guide

Before you start

Installation of Bayonet BayoWrap Self Support Roof 03 can be used in warm, cold, and cold non-ventilated normal to pitched roofing systems. In roof construction it is important to recognise that underlays are one of the defence mechanisms in managing internal moisture and should not be used as a compensation for unreliable weatherproofing design or installation. For this reason the requirements of NZBC E2/AS1, New Zealand Metal Roofing Manufacturers Inc. code of practice, NZS 2295:2006, AS4200:Part 2, NASH Building Envelope Solutions: 2019 for Light Steel Framed Buildings and the following list of criteria must be met to comply with the requirements of this technical document:

Safety

Prior to accessing the roof the Best Practice Guidelines for Working on Roofs provided by Ministry of Business, Innovation and Employment (MBIE) must be applied to meet their obligations under the Health and Safety in Employment Act 1992 (HSE Act) and the HSE Regulations 1995.

Care should be taken in handling materials at height. In particular ensure that manual handling regulations are not exceeded. Sufficient edge protection, netting, appropriate scaffolding and lifting equipment are necessary to ensure the safe application of roofing underlays. Before work commences a method statement and risk assessment should be prepared risk mitigation actions implemented.

Timing of installation

The Bayonet BayoWrap Self Support Roof 03 can not be left uncladded for which ever is the greater of 7 days or 50 hours of sunshine exposure. Any further sunshine radiation exposure to the product will negatively affect its tensile strength properties.

The commencement of the installation of the roofing underlay can only start once the timber frame moisture content is less than 20% and the relative humidity of the interior of the building is below 75%. A relative humidity of the interior of the building of below 75% will be required before the installation roof underlay for steel frame and concrete buildings. Residual construction moisture will collect on the underlays soon after installation if installed at greater than 75% relative humidity levels.

Where timbers on roofs have been treated with wood preservative due to high moisture content of timbers, it is essential that manufacturer's guidance be sought in relation to chemical attack from preservative on roofing underlay especially treated with solvent based preservatives


The underlay can be used to provide temporary weather protection, as the main function of a roof tile underlay is to provide a secondary barrier to the roof covering, preventing the ingress of wind-driven rain, snow, dust into the roof space and reduce the wind uplift forces acting on the roof covering. However the underlay is not a total waterproof barrier and if it is to be used as a temporary waterproof covering some rain penetration may occur.

In certain conditions, particularly if there is persistent heavy rainfall combined with subsequent severe freeze/thaw conditions, an underlay should not be exposed for more than a one week. To avoid unnecessary damage to the underlay, care must be taken where high winds persist.

Moisture-sensitive internal materials and/or finishes should not be installed until the external roof covering has been completed.

Installation Guide

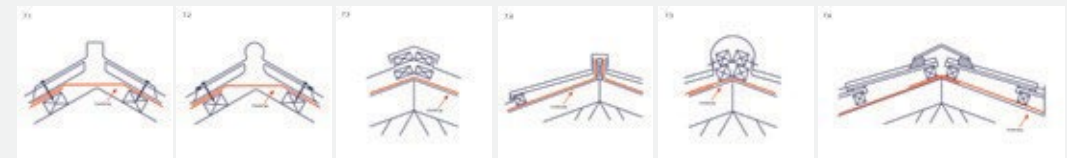
Installation process

- 1. Safety:** Applied your risk assessment and mitigation actions as per the Best Practice Guidelines for Working on Roofs by (MBIE).
- 2. Pre-Installation conditions:** The roofing system meets the conditions as set out in the “Timing of installation” section on the previous page.
- 3. Product Handling:** Reasonable precautions must be taken in handling the rolls to prevent damage, such as tears or perforations, occurring before and during installation, and prior to the application of the roof covering. The rolls must not be exposed to a naked flame or other ignition source. Damage to the roof underlay greater than 75mm in form of rips or tears requires the underlay to be replaced. Rips up to 75mm can be repaired using Bayonet BayoWrap Window Sealing Tape.
- 4. Unrolling:** Unroll the underlay exactly as per the sketch, such that the inner surface of the roll [coloured side] is facing up. 
Roof types:- Laying of underlay can either be horizontal or vertical but the NZBCE2/AS1 prescribes the following according to roof pitch.

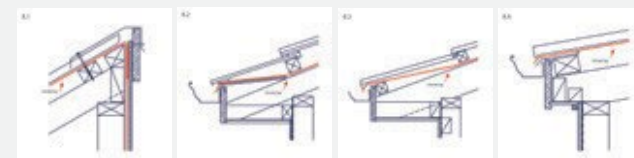
| Roof pitches below 10° | Roof pitches of 10° or above |
|---|------------------------------|
| Run horizontally or vertically | |
| When fully supported by a corrosion resistant roof support | Self supporting |
| Good ventilation design and effective weathertight details need to be applied in conjunction with underlay details for effective moistures control especially with low pitch roofs. | |

- 5. Lapping:** All sides of the underlay must over lap by 150mm. Overlapping of underlay must be kept to a minimum and there are specific requirements for the ends of the underlay that terminate at the ridge, eaves, abutments and roof protrusions (see items 7-23).

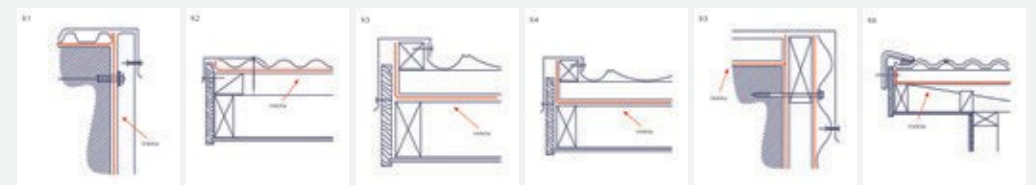
- 6. Supports:** Bayonet BayoWrap Self Support Roof 03 is strong enough to support its own weight up to a 1200 mm span.
- 7. Ridges:** All underlay is terminated at the ridge, and if not it should be slit or slotted to allow passive ventilation of the ceiling cavity.



- 8. Eaves:** The underlay should terminate on the upper side of the eaves flashing or overhang fascia by no more than 20 mm to prevent wicking.

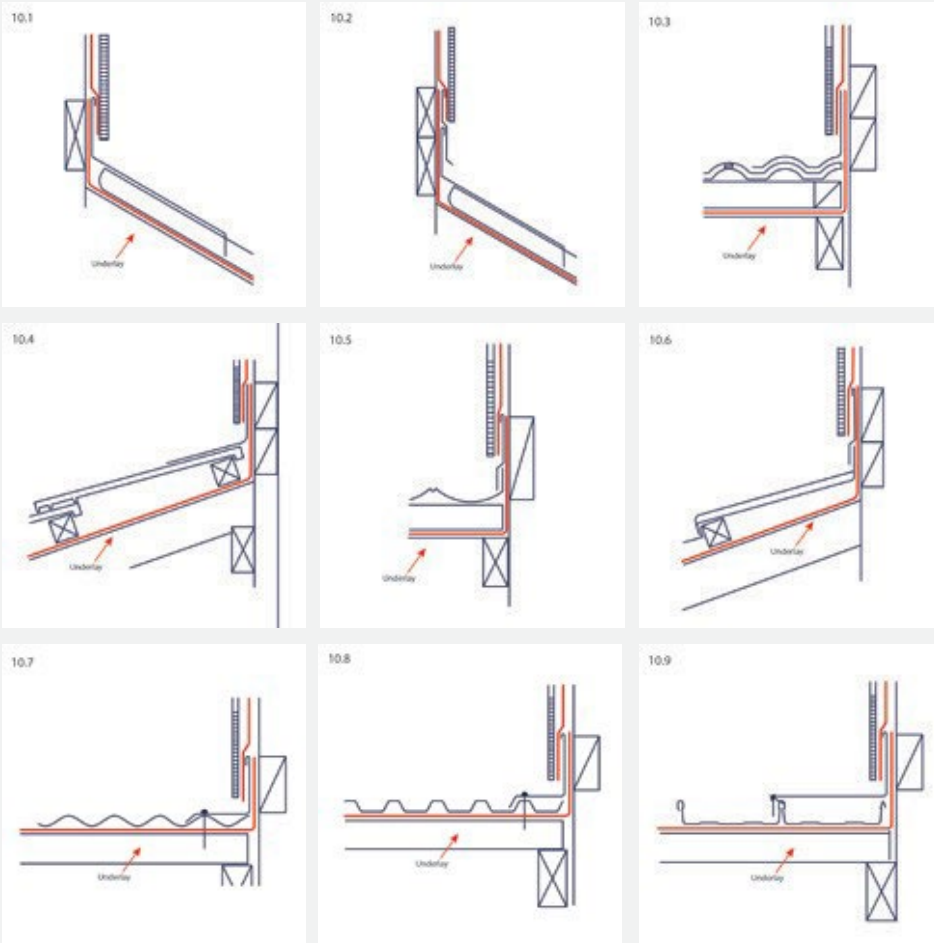


- 9. Barge:** The underlay should terminate to the highest point, either the top of the barge board or meet the metal barge flashing except for horizontal profiled metal where the underly is used to separate the metal from timber.

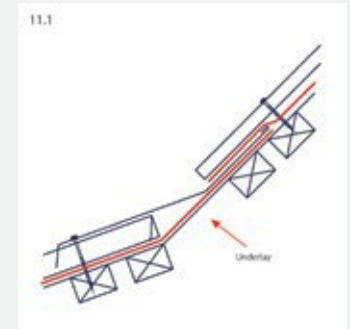


Installation Guide

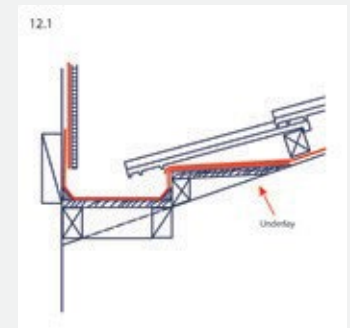
10. Aprons: The underlay lap should terminate at a minimum of 150mm from the roof edge to the wall and separate any metal aprons flashing from the wall/ timber.



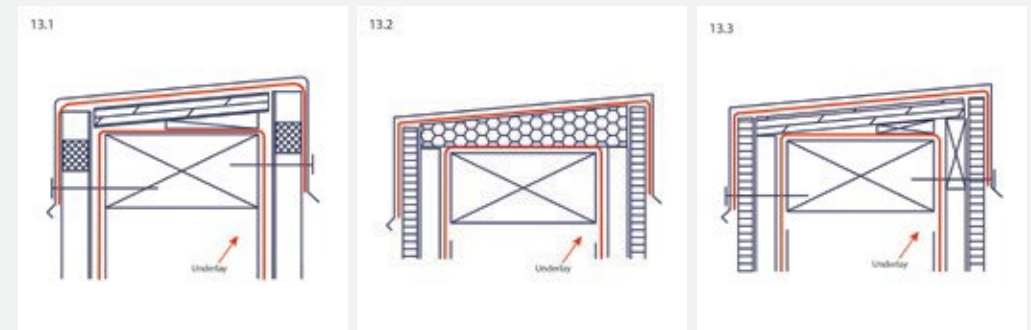
11. Aprons flashing and change in roof pitch: The underlay lap should terminate at the end of the apron flashing so as to any metal apron flashing from the supporting roof structure.



12. Abutment: The underlay is to cover the gutter lining under the roof area and overlap into the gutter by a maximum of 20 mm to prevent wicking.



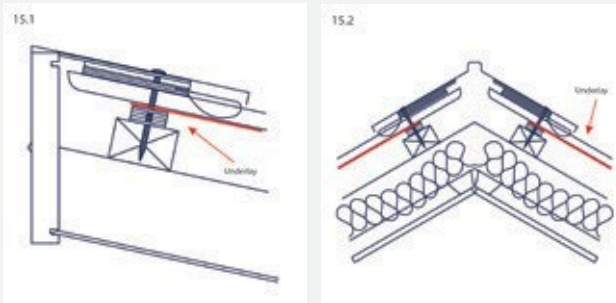
13. Parapet and enclosed balustrades: The underlay is to provide separation of the metal and timber.



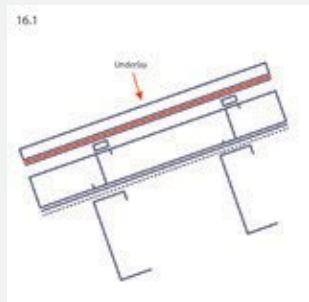
SYNTHETIC

Installation Guide

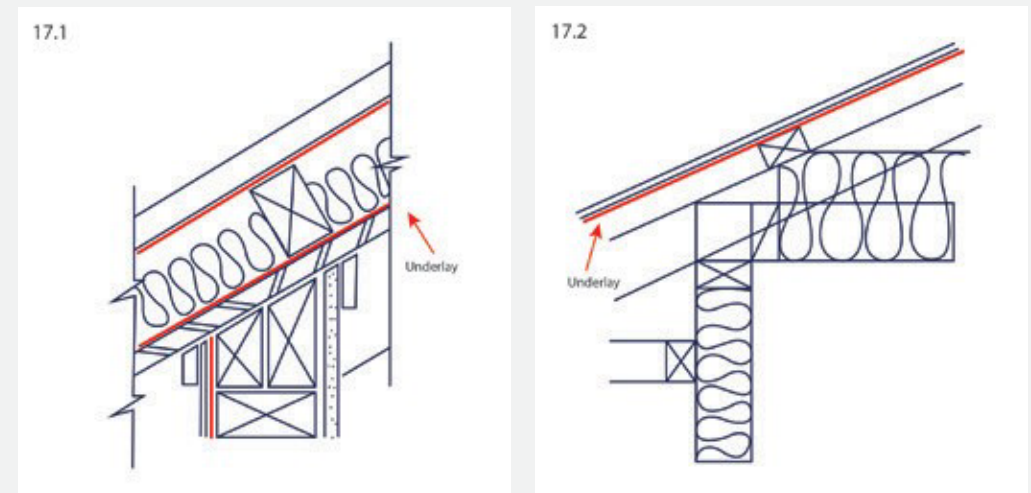
- 14. Penetrations:** All roof penetrations that pass through the roof underlay will be installed by star-cutting the underlay carefully to prevent tears, closely fitted over the pipe, ensuring that all the tabs project upwards along the pipe, and then the tabs taped around the circumference of the pipe using a flexible flashing tape complying with Parts 3.2 and 4 of ICBO Acceptance Criteria AC148, shall be compatible or roof underlay, and be used only in fully concealed applications.
- 15. Vented Cavity Battens:** The underlay should be positioned on the upper side of the batten, directly under the roof covering allowing the battens to vent the roof cavity directly.



- 16. Thermal breaks:** The underlay is to be installed between the roof covering and the insulating spacer to avoid thermal bridging.



- 17. Cold roofs and insulation:** In cold roof construction, the insulation is at ceiling level and there is an air gap between the insulation and the roof underlay of at least 25mm.



- 18. Separation from sources of heat:** Underlays being combustible materials must be separated from chimneys, flues, fire places and heating appliances as indicated in Part 7 of NZBC Acceptable Solutions C/AS1-C/AS6 and NZBC Verification Method C/VMI.
- 19. Accidental ignition:** Underlays have the risk of fire spread when used unsupported, should the material be accidentally ignited during maintenance works, etc. (e.g. by a roofer or plumbers torch). As with all types of sarking and bituminous material, care must be taken during building and maintenance to avoid the material becoming ignited.

Installation Guide

- 20. Fixings of roof underlay:** If the underlay is laid during roof or batten installation then the fixings used will be normally permanent through the roof, battens or purlins and comply with the specific design requirements of the building including the NZBC. If the temporary fixing is required then 6-8mm stainless steel staples or self drilling screws that are compatible with the roof coverings can be used as long as they are compatible with the roof covering. The maximum distance between fixing centres to all framing members is 300mm.
- 21. Ultraviolet Radiation:** Once the underlay is installed and covered with the roof covering, it must not be exposed to the weather or direct ultra-violet light for long periods. It is recommended that any transparent cladding or windows have UV filters in place to prevent the degradation of the underlay over time as the UV reflective properties of white paint, concrete and asphalt range from 4-22% and will reduce the serviceable life of the underlay to that of the roof cladding.
- 22. Loading Underlay:** Bayonet BayoWrap Self Support Roof 03 is not designed to withstand the weight of an installer, tiles, roofing material being loaded out. Purlins must therefore be installed as work progresses from eaves to ridge for achieving support for feet and avoiding damage to the underlay surface. No materials or implements should be resting on the underlay. Where pressure on the underlay over a rafter is unavoidable, it should be noted that the underlay does not offer substantial grip, particularly at overlaps or when wet.
- 23. Repairing Installed Underlay:** Where the underlay becomes damaged for whatever reason, repairs can be carried out by overlaying the damaged area with a layer of additional material ensuring a 150mm overlap all round, ensuring that the up-slope side is overlapped by the next highest horizontal run of underlay, and secured under a batten. If the underlay is vertically installed, a full new sheet width will be installed from and fixed to the purlin below the damaged area to two purlins above the damaged area, fitted to under the old sheet and fixed to the purlin.