Thermakraft™

Installation Guide

COVERTEK 405

Self-supporting roof and wall underlay

Covertek 405 is a premium synthetic roof and wall underlay designed as a means of managing condensation, water vapour transfer and water ingress. It is self-supporting, stable and shrink resistant and can be installed in applications where the roof pitch is 3° and above.

Product usage

Covertek 405 is a synthetic self-supporting roof and wall underlay designed as a means of managing condensation, and water ingress in roof and wall applications. Constructed using a microporous water-resistant film sandwiched between two layers of spun-bonded polyolefin Covertek 405 is fire retardant, absorbent and breathable.

Smarter products. Better buildings.
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CodeMark GM-CM30030

BRANZ Appraised
Appraisal No.743 [2019]

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Roof Application Method

Long-run metal roofing/vertical or horizontal installation method

- Fix Covertek 405 underlay with printed side facing the exterior.
- Fix using stainless steel 8-12mm staples or 20mm flat head clouts, or appropriate proprietary fastenings on timber framed structure. Fixing at 300mm centres. Fixing types and requirements for steel framed structure can be found in the NZ Metal Roof and Wall Cladding Code of Practice.
- Refer to table below to determine underlay support requirements.

Roof Pitch	Span	Underlay Support Required	
		Horizontally Installed	Vertically Installed
≥ 10°	> 1200mm	Yes	Yes
	≤ 1200mm	No	No
< 10° (Min 3°)	> 1200mm	Yes	Yes
	≤ 1200mm	No	Yes

- Covertek 405 upper sheet lapped over lower sheets (shiplap) to ensure water is shed to the outer face. **Note:** Covertek 405 can move downwards. To prevent this, it must be "Captured" by the fastenings at each purlin. Horizontal fix must not be used on purlin distance greater than 1100mm to allow for 150mm laps.
- Must be laid firmly (tight/taut) without creases. All laps either vertical or horizontal must be a minimum of 150mm lap.
- When underlay support is required, Thermakraft recommend using AUSMESH Safety Mesh, AUSNET hexagonal netting or Thermastrap 201. **Note:** Commercial Buildings may require the use of Thermakraft Safety Mesh under Covertek 405. Covertek 405 can be installed above the battens or purlins for profiled metal roof claddings and otherwise in accordance with NZBC E2/AS1.
- If required to achieve a lap seal (refer to the NZ Metal Roof and Wall Cladding Code of Practice), use Thermakraft Premium Joining Tape or any Thermakraft Window Flashing Tape.
- Covertek 405 will provide temporary weather protection during construction (maximum 7 days), same day coverage recommended. DO NOT over expose the product for more than 7 days.
- Covertek 405 may be unwound to the full length from the gutter to the ridge. However, when ridge ventilation is required Covertek 405 may be terminated or slit at the ridge purlin to allow a free passage of air.
- Covertek 405 must NOT overhang the gutter line by more than 20 mm, or if eaves flashings are used, terminate on the upper side of the flashing. More details can be found in the NZ Metal Roof and Wall Cladding Code of Practice.
- Flue penetrations must have a minimum distance of 50mm from Covertek 405 (refer to the NZ Metal Roof and Wall Cladding Code of Practice 10.11.5 and the flue supplier's instructions).
- Covertek 405 must be free of tears and punctures, fit tightly and be lap taped around all penetrations (except flue penetrations), to provide drainage for any condensation, or surface water from leaks.

Note: Do not use Aluband on penetrations where Polybutene water pipes have been installed. Refer Pipe Manufacturers for instructions on sealing penetrations.

Concrete/Metal tile roofing

- Covertek 405 must be laid over rafters prior to fixing the tile battens. The maximum span between rafters for Covertek 405 is 1200mm. Masonry tile roofs must have antiponding boards in accordance with NZBC E2/AS1 Paragraph 8.2.5.
- Installed Covertek 405 may be laid over the top of the antiponding boards and draped into the gutter by no more than 20mm.
- Covertek 405 must be installed by, or under the guidance of a licensed building practitioner.

Application Tips

Unaffected by LOSP or other solvent based treated timber. However, LOSP or other solvent based treated timber must have sufficient time for the solvent chemical to flash off in a well ventilated area. Recommended minimum 7 days.

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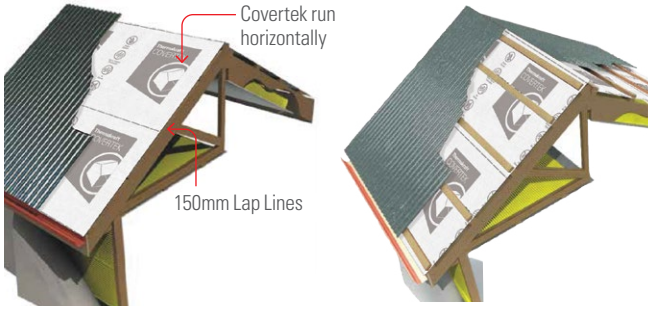
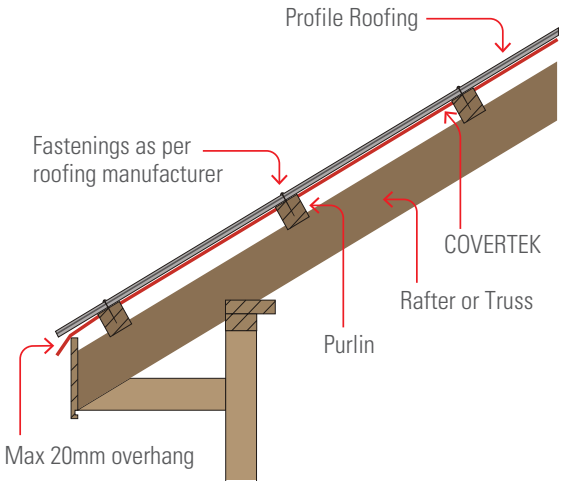
Corrugated roofing:



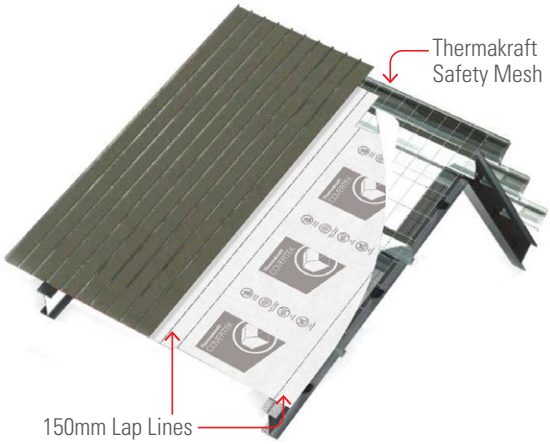
Covertek 405 must be installed in a manner that prevents ponding of water and span no more than 1200mm.

Long run metal roofing:

Wooden construction

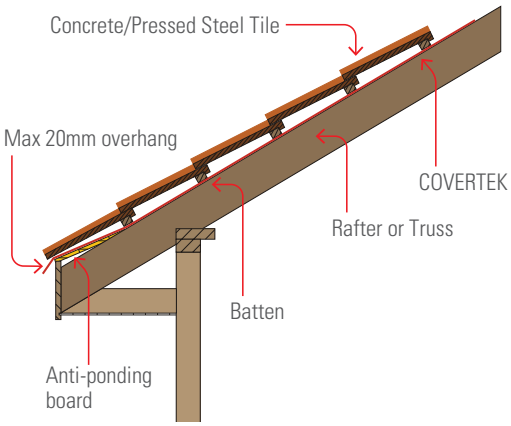


Steel construction

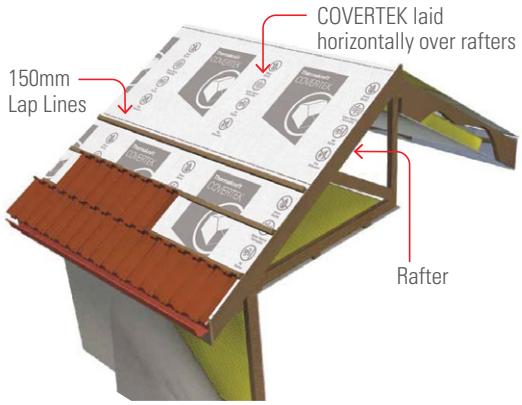


Concrete/metal tile roofing:

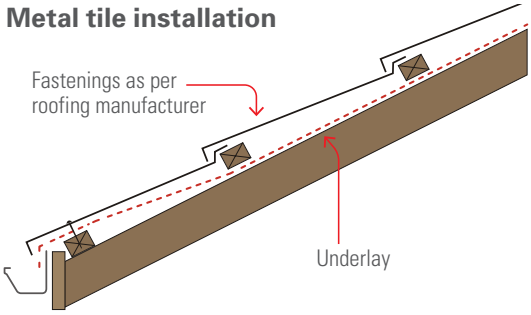
Tile roofing



Tile roofing



Metal tile installation



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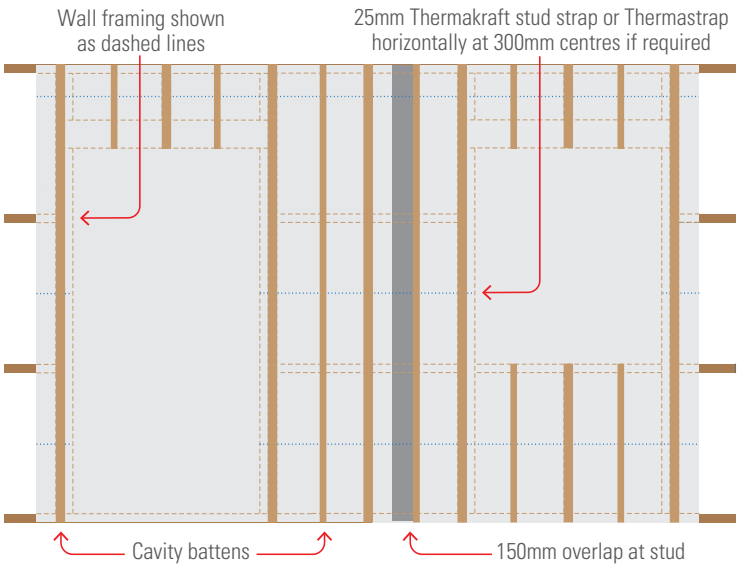
Wall Application Method

- Fix Covertek 405 underlay with printed side facing the exterior.
- Fix to all exterior walls from below bearers to the top plate. Pull the Covertek 405 underlay tight and fix securely to the frame with fasteners such as galvanized Little Grippers, 6mm-8mm staples or 20mm large head galvanized clouts at 300mm centres horizontally and vertically. Additional fasteners should be used around each opening to be cut out. Fixing types and requirements for steel framed structure can be found in the NZ Metal Roof and Wall Cladding COP.
- When fixing Covertek 405 underlay to Steel framing the same procedure applies, use adhesive spray or tape or flat head screws to fasten to the framing or thermal break. The exterior cladding fastenings will act as the permanent fixings.
- Fastenings behind Brick Veneer Cladding must have an equivalent service life to that of Brick Veneer (50 years). Refer to NZBC Clause B2.3.2.
- Covertek 405 underlays are available in widths of 2550mm and 1250mm.
- Cover all windows and door openings with Covertek 405 underlay.
- It is recommended that the Covertek 405 underlay is not cut and prepared for window installation until the arrival of the windows. Minimum of 150mm is required at joins, all vertical laps must be made over studs. Horizontal laps to be laid ship lap style allowing water to be shed to the outer face of the membrane.



- When windows and doors are ready for installation, the Covertek 405 underlay covering the openings should cut at 45° and folded into the opening and securely fastened. Thermakraft window flashing tapes are recommended as the window flashing system.
- **Note:** In accordance with NZBC Acceptable Solution E2/AS1, wall underlay must be prevented from bulging into the drained cavity. Where stud spacing is greater than 450mm Thermakraft stud strap or Thermastrap run horizontal at 300mm centres is an acceptable means of prevention.
- Once installed, Covertek 405 must not be left exposed to the weather or UV for a maximum of 60 days. Covertek 405 underlays will provide some degree of temporary weather protection during construction allowing work to continue. Internal linings and insulation must not be installed until the exterior cladding is completed.
- Make good any forced tears with Thermakraft window flashing tapes. Any large areas which require repair may be covered with a second layer of underlay - a lap of 150mm is required.
- Lap taping can be done with Thermakraft Premium Joining Tape or any Thermakraft Window Flashing Tape.
- Covertek 405 underlay must be installed by, or under the guidance of a licensed building practitioner.

Application Tips

Unaffected by LOSP or other solvent based treated timber. However, LOSP or other solvent based treated timber must have sufficient time for the solvent chemical to flash off in a well ventilated area. Recommended minimum 7 days.

Handling and Storage

Covertek 405 must be handled with care to prevent damage such as tearing and roll deformation.

The product must be stored under cover well away from direct moisture, rainfall contact and sunlight (UV). Care should be taken not stack other materials on top of the product.

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