

## **Thermakraft**

# COVERTEK 405

## Self-supporting roof and wall underlay

Kingspan Thermakraft 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.

#### Covertek 405 comes in three roll sizes:

1250mm wide	20m long	25m² Coverage²
1250mm wide	40m long	50m² Coverage²
2550mm wide <sup>1</sup>	29.4m long	75m² Coverage²

Cut to Length available – Contact your Kingspan Insulation Representative.

- 1 Note: made to order.
- 2 Note: m<sup>2</sup> is the roll size for actual coverage, allow for laps and joins.









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#### Scope of Use

#### **Roof Application**

- Suitable with masonry tile, metal tile and profiled metal roof cladding.
- Suitable for timber or steel framed buildings.
- Can be used on roofs up to and including NZS 3604 'Extra High' wind zones.
- Self-supporting Refer to installation guide regarding underlay support requirements.
- Not suitable for roof pitch less than 3 degrees.
- Will provide temporary weather protection during construction (maximum 7 days), same day coverage recommended.

#### **Wall Application**

- Can be used with timber and steel framing, either direct or in conjunction with an 18mm minimum drained cavity.
- Suitable with absorbent (e.g. timber, brick or fibre cement) or non-absorbent wall claddings (e.g. metal or plastic).
- Suitable with masonry veneer in accordance with NZBC Acceptable Solution E2/AS1 or NASH Building Envelope Solutions.
- Is suitable for use in Wind Zones of NZS 3604 up to and including 'Very High' when used as a standalone flexible underlay, and 'Extra High' when used as a flexible underlay over a rigid wall underlay.
- Is suitable as an air barrier in unlined wall spaces.
- Will provide some temporary weather protection during construction (maximum 60 days for wall application).

#### General

- Is fire retardant.
- 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.
- Tear resistant and strong.

#### Limitations

- Must NOT be exposed to the weather or UV for more than 7 days as a roof underlay and 60 days as a wall underlay.
- Must not be used under translucent sheeting.

#### Compliance

#### **Roof Application**

- Can be used as an underlay within the scope limitations of NZBC Acceptable Solution E2/AS1, Paragraph 1.1, with regards to building height and floor plan area.
- Or within the scope limitations of NASH Building Envelope Solutions, Paragraph 1.1 for steel framed buildings.
- Refer BRANZ Appraisal No 743 (2019) and CodeMark Certificate GM-CM30030 for full details.
- CodeMark Certification only covers roof application.

#### **Wall Application**

- Can be used as a wall underlay within the scope limitations of NZBC Acceptable Solution E2/AS1, Paragraph 1.1, with regards to building height andvfloor plan area.
- Or within the scope limitations of NASH Building Envelope Solutions, Paragraph 1.1 for steel framed buildings.
- Refer to BRANZ Appraisal No 743 (2019) for full details.

#### Flammability Index

Covertek 405 Underlay has an AS 1530 Part 2 Flammability Index of not greater than 5 and therefore meets the requirements of NZBC Acceptable Solutions C/AS2 to C/AS6, Paragraph 4.17.8 b), for the surface finish requirements of suspended flexible fabric used as an underlay to exterior cladding that is exposed to view in occupied spaces.

#### Durability

Meets the Performance Requirements of NZBC Clauses B2, Durability (B2.3.1 (a) 50 years, B2.3.1 (b) 15 years and B2.3.2), C3 Fire affecting areas beyond the fire source C3.4 (c) E2 External Moisture, and F2 Hazardous Building Materials F2.3.1/C, providing:

- It is not damaged.
- Is installed in accordance with instructions.
- Is not left exposed for more than 7 days (roof), same day coverage recommended.
- Is not left exposed for more than 60 days (wall)
- Is installed by or under guidance of Licensed Building Practitioners.
- Is compatible with cladding system used.\*
- Note: specifiers and product users must test for roof cladding system compatibility with the underlay before installation.

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#### Control of Condensation

In climatic regions where condensation risks are high, such as cold or high humidity areas, care needs to be taken in specifying the correct design and installation to prevent moisture build-up in the roof cavities.

Factors which adversely affect the condensation risk in roofing systems include:

- Humid, and/or cold climatic regions.
- Warm/Skillion roof construction.
- Low roof cavity air volume and restricted air movement.
- Omitting Vapour Control Layers.
- Occupancy activities which have high moisture loading on conditioned spaces.
- Ceiling penetrations and entry of warm air into roof cavities.

- Low pitched roof.
- Bulk insulation.
- Building structures ability to naturally dry construction moisture.

Skillion and Warm Roof Construction are particularly sensitive to moisture accumulation and the design and installation of roof construction needs to take into account the higher condensation risks. Refer to the NZ Metal Roof and Wall Cladding Code of Practice (COP) for details.

For passive ventilation of the roof space, it is recommended that all roof underlays are terminated at the ridge, and if not it should be slit or slotted to allow for passive ventilation. For further information refer to the NZ Metal Roof and Wall Cladding COP.

#### **Property Performance**

The following data represents the minimum pass rates required by the NZBC. This product tests well beyond the minimum standards. If you require actual performance results, please contact your local Kingspan Insulation representative.

NZBC E2/AS1 Table 23 (NZS2295) Roof Underlay Properties	Absorbency	Vapour Resistance	pH of Extract	Shrinkage	Water Resistance	Air Resistance
Property Performance Requirement	≥ 150gsm	≤ 7 MN.s/g	≥ 5.5 and ≤ 8	≤ 0.5%	≥ 100mm	≥ 0.1 MN.s/m3
Property Performance	Pass	Pass	Pass	Pass	Pass	Pass*

<sup>\*</sup> Note: Can be used as an air barrier.

#### **Product Warranty**

Standard Kingspan Insulation Warranty applies. Refer to Kingspan Insulation Warranty statement for further details. This is available online at **thermakraft.co.nz** or call **0800 806 595**.







#### 0800 806 595 www.thermakraft.co.nz

Thermakraft and Ausmesh products are brought to you by Kingspan Insulation NZ Limited.

