

CERTIFICATE OF CONFORMITY

This product Certificate is issued under Section 269 of the Building Act 2004 for:

Thermakraft Covertex 405



Page 1 of 4



Product Description

Thermakraft Covertex 405 Fire Retardant Self-Supporting Roof Underlay (Covertex 405) is a synthetic building underlay for use under roof claddings. The product consists of a micro-porous water resistant film laminated to two layers of non woven spun-bonded polyolefin. Covertex 405 is coloured white on the top bottom faces.

Product purpose and use

Covertex 405 has been appraised for use as a self-supporting roof underlay on buildings within the following scope:

- the scope limitations of NZBC Acceptable Solution E2/AS1, (Amendment 8, 30 November 2018), Paragraph 1.1 with regards to building height and floor plan area; and,
- with masonry tile roof cladding; and,
- with metal tile and profiled metal roof cladding; and,
- situated in NZS 3604-2011 Wind Zones up to, and including 'Extra High'.

Covertex 405 is supplied in rolls 1.250 m wide x 20 m and 40 m long or 2.550 m wide x 29.5 m long. The product is printed with the Covertex 405 logo repeated along the length of the roll as well as lap lines. A customer specific version without the Covertex 405 print is also available. The rolls are wrapped in clear polythene film.

Accessories used with Covertex 405 which are supplied by the installer are:

- Fixings - stainless steel staples, clouts, screws or proprietary underlay fixings, or other temporary fixings to attach the roof underlay to the framing.

For use as an alternative to the conventional kraft paper roof underlays: fixed over timber or steel framed roofs in order to limit the entry of wind into the roof cavity and to assist in the moisture management of the cladding system.

Certificate holder

Thermakraft Limited

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CodeMark Certification Body		11/7/2013	1/7/2019	1/7/2022	GM-CM30030-RevF
Global-Mark Pty Ltd, Suite 4.07, 32 Delhi Road, North Ryde NSW 2113, Australia Tel: +61 (0)2 9886 0222 www.Global-Mark.com.au	Herve Michoux Managing Director	Date of issue	Last update	Date of next re-certification	Certificate Number

The purpose of construction site audits is to confirm the practicability of installing the product; and to confirm the appropriateness and accuracy of installation instructions. In issuing this certificate, Global-Mark has relied on the independent expert and/or laboratory advice or reports.

This certificate is issued by Global-Mark Pty Limited, an independent certification body accredited by the product certification accreditation body (JAS-ANZ) appointed by the Chief Executive of the Ministry of Business Innovation and Employment under the Building Act 2004. The Ministry of Business Innovation and Employment does not in any way warrant, guarantee, or represent that the building method or product the subject of this certificate conforms with the New Zealand Building Code, nor accept any liability arising out of the use of the building method or product. The Ministry of Business Innovation and Employment disclaims, to the extent permitted by law, all liability (including negligence) for claims of losses, expenses, damages, and costs arising as a result of the use of the building method(s) or product(s) referred to in this certificate. This Certificate may only be reproduced in its entirety.

It is advised to check that this Certificate of Conformity is currently valid and not withdrawn, suspended or superseded by a later issue by referring to the Ministry of Business Innovation and Employment website, <http://www.mbie.govt.nz/>

New Zealand Building Code (NZBC) references the Building Code in force at the time of issuing the product certificate.

Certificate holder will notify Global-Mark Pty Ltd in accordance with Regulation 15 of the Building (Product Certification) Regulations 2008

CERTIFICATE OF CONFORMITY

This product Certificate is issued under Section 269 of the Building Act 2004 for:

Thermakraft Covertek 405



Page 2 of 4



Compliance with the New Zealand Building Code (NZBC):

- **Clause B2 DURABILITY:** Performance B2.3.1(a), not less than 50 years, B2.3.1(b), 15 years and B2.3.2. Covertek 405 meets these requirements.
- **Clause C3 FIRE AFFECTING AREAS BEYOND THE FIRE SOURCE:** Performance C3.4 (c) Covertek 405 meets this requirement.
- **Clause E2 EXTERNAL MOISTURE:** Performance E2.3.2. When used as part of the roof cladding system, Covertek 405 will contribute to meeting this requirement.
- **Clause F2 HAZARDOUS BUILDING MATERIALS:** Performance F2.3.1. Covertek 405 meets this requirement and will not present a health hazard to people.

Subject to the following conditions and limitations:

- Maintaining the validity of BRANZ Appraisal No. 743 (2019) Thermakraft Covertek 405 Fire Retardant Self Supporting Roof Underlay (the Appraisal) (refer to www.branz.co.nz).

Design and Installation Conditions:

- **Timber and Steel Framing**

Timber and steel roof framing must be provided in accordance with the requirements of the NZBC and the roof cladding manufacturer.

- **General**

Table 1: NZBC E2/AS1 (Amendment 8, 30 November 2018) Table 23 Requirements

Roof Underlay Properties	Property Performance Requirement	Results
Absorbency	$\geq 150 \text{ g/m}^2$	Pass $> 150 \text{ g/m}^2$
Vapour Resistance	$\leq 7 \text{ MN s/g}$	Pass
Water Resistance	$\geq 100 \text{ mm}$	Pass
pH of Extract	≥ 6 and ≤ 9	Pass
Shrinkage	$\leq 0.5\%$	Pass
Mechanical	Edge tear and tensile strength	Edge tear (Average): <ul style="list-style-type: none">• Machine direction = 204 N• Cross direction = 191 N Tensile strength (Average): <ul style="list-style-type: none">• Machine direction = 3.94 kN/m• Cross direction = 3.66 kN/m

CERTIFICATE OF CONFORMITY

This product Certificate is issued under Section 269 of the Building Act 2004 for:

Thermakraft Covertek 405

Page 3 of 4



Covertek 405 is intended for use as an alternative to conventional kraft paper roof underlays, which are fixed over timber or steel framed roofs in order to limit the entry of wind into the roof cavity, and to assist in the moisture management of the roof cladding system.

The material also provides a degree of temporary weather protection during early construction. However, the product will not make the roof weathertight and some wetting of the underlying structure is always possible before the roof cladding is installed. Hence, the entire building must be closed-in and made weatherproof before moisture sensitive materials such as ceiling linings and insulation materials are installed.

Covertek 405 is suitable for use under roof claddings on buildings as a roof underlay as called up in NZBC Acceptable Solution E2/AS1 (Amendment 8, 30 November 2018), Table 23. Refer to Table 1 for the material properties of Thermakraft Covertek 405 Fire Retardant Self-Supporting Roof Underlay.

Covertek 405 is suitable for use in residential and commercial roofs with roof pitches of minimum 3°. The product must not span unsupported more than 1200 mm in one direction. Spans greater than 1200 mm require additional support such as galvanised wire mesh or safety mesh.

- At roof pitches of 10° or more, Covertek 405 may be run horizontally or vertically.
- At roof pitches less than 10° (minimum 3°), Covertek 405 may be run
 - horizontally, or
 - vertically if installed over a roof underlay support.

Refer to Table 2 for a summary of the roof underlay support requirements.

Table 2: Roof Underlay Support Requirements

Roof Pitch	Span	Roof Underlay Support Required?	
		Horizontally Installed	Vertically Installed
10° or more	Greater than 1200 mm	Yes	Yes
	1200 mm or less	No	No
Less than 10° (minimum 3°)	Greater than 1200 mm	Yes	Yes
	1200 mm or less	No	Yes

• Structure

Covertek 405 is suitable for use in Wind Zones of NZS 3604-2011 up to, and including, 'Extra High'.

• Durability

Covertek 405 meets code compliance with NZBC Clause B2.3.1 (a), not less than 50 years for roof underlays used where the roof cladding durability requirement or expected serviceable life is not less than 50 years, e.g. behind masonry roof tile cladding, and code compliance with NZBC Clause B2.3.1 (b), 15 years for roof underlays used where the roof cladding durability requirement is 15 years.

• Serviceable Life

Provided it is not exposed to the weather or ultra-violet light for a total of more than 7 days, and provided the roof cladding is maintained in accordance with the cladding manufacturer's instructions and the roof cladding remains weather resistant, Covertek 405 is expected to have a serviceable life equal to that of the roof cladding.

• Control of Internal Fire and Smoke Spread

Covertek 405 has an AS 1530 Part 2 – 1993 (including Amendment 1) flammability index of not greater than 5 and therefore meets the requirements of NZBC Acceptable Solutions C/AS2 to C/AS6 Amendment 4 (1 January 2017), 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. It may therefore be used with no restrictions in all buildings.

• Prevention of Fire Occurring

Separation or protection must be provided to Covertek 405 from heat sources such as fire places, heating appliances, flues and chimneys. Part 7 of NZBC Acceptable Solutions C/AS1 – C/AS6 (Amendment 4 (1 January 2017) and NZBC Verification Method C/VM1 Amendment 4 (1 January 2017) provide methods for separation and protection of combustible materials from heat sources.

CERTIFICATE OF CONFORMITY

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Thermakraft Covertek 405

Page 4 of 4



- **External Moisture**

Covertek 405 must only be used under roof claddings that meet the requirements of the NZBC, such as those covered by NZBC Acceptable Solution E2/AS1 (Amendment 8, 30 November 2018).

Thermakraft Covertek 405 Fire Retardant Self-Supporting Roof Underlay, when installed in accordance with Thermakraft Covertek 405 Synthetic Roof Underlay (J2902-05/17), will assist in the total cladding system's compliance with NZBC Clause E2.

- **Underlay Installation:**

Covertek 405 must be fixed at maximum 300 mm centres to all framing members with large-head clouts 20 mm long, 6-8 mm stainless steel staples, self-drilling screws or proprietary underlay fixings. The membrane must be pulled taut over the framing before fixing.

Covertek 405 may be run vertically or horizontally. Refer to Table 2 for a summary of roof underlay support requirements. The roof underlay must extend from the ridge and overhang the fascia board by 20-25 mm.

Vertical laps must be no less than 150 mm wide. Horizontal laps must also be no less than 150 mm, with the direction of the lap ensuring that water is shed to the outer face of the underlay. End laps must be made over framing and be no less than 150 mm wide. To assist with achieving the correct lap dimension, Covertek 405 has a 150 mm lap line printed continuously along the top face.

When fixing the product in windy conditions, care must be taken due to the large sail area created.

Any damaged areas of Covertek 405, such as tears, holes or gaps around service penetrations, must be repaired. Damaged areas can be repaired by covering with new material lapping the damaged area by at least 150 mm and taping, or by taping small tears.

- **Installation Conditions:**

Shall be carried out by:

- A Licensed Building Practitioner with experience in roof cladding installation; or,
- By competent tradespersons with an understanding of roof underlay installation.

The installer shall also:

Comply with all relevant technical information relating to the products use, including information contained within the Thermakraft Covertek 405 Synthetic Roof Underlay (J2902-05/17) and the Appraisal.

End of record