



## SYNTHETIC SELF SUPPORTING ROOF UNDERLAY

*For Timber and Steel framed roof systems*

**Thermakraft 401** is an absorbent and breathable synthetic roof underlay, constructed using a microporous water resistant film sandwiched between two layers of shrink resistant spun-bonded polyolefin. Designed and made in New Zealand, a lightweight high strength underlay suitable for use unsupported where fire retardancy is not required.

### ADVANTAGES

#### Roof

- » Suitable with masonry tile roof cladding.
- » Suitable with metal tile and profiled metal roof cladding.
- » Self-supporting when run horizontally at pitches  $\geq 3^\circ$  When run vertically at pitches  $\geq 3^\circ < 10^\circ$  support is required, at 10 degrees or greater, support not required when run vertically up to spans of 1200mm max.
- » Will provide temporary weather protection during construction (roofs 7 days) same day coverage recommended.
- » May be installed in adverse conditions.
- » May be run to any length, including under dark coloured roofs.
- » Has a 150mm lap line printed on each edge.

#### General

- » Unaffected by LOSP treated timber.
- » Recyclable with no VOC's.
- » Tear resistant, light weight and strong.



BRANZ Appraised  
Appraisal No.943 [2016]



For additional details and latest specifications [www.thermakraft.co.nz](http://www.thermakraft.co.nz) or scan QR code.

# Thermakraft 401 - Technical Specification

Breathable | Absorbent | Non Woven | Roof Underlay

Thermakraft 401 can be used as a roof underlay on timber and steel framed buildings within the following scope:

- » The scope limitations of NZBC Acceptable Solution E2/AS1, Paragraph 1.1; and,
- » With masonry tile roof cladding; and
- » With metal tile and profiled metal roof cladding; and,
- » Situated in NZS3604 Wind Zones up to, and including Extra High).
- » Self-supporting when run horizontally at pitches  $\geq 3^\circ$  When run vertically at pitches  $\geq 3^\circ < 10^\circ$  support is required, at 10 degrees or greater, support not required when run vertically up to spans of 1200mm max.
- » Must be supported if run vertically below  $10^\circ$ . Minimum roof pitch  $3^\circ$ .
- » Refer BRANZ Appraisal No. 943 [2016] for full details.

## Flammability Index

Thermakraft Covertex 401 is not rated as fire retardant. Covertex is recommended where fire retardant underlay is required.

## Limitations

Thermakraft 401 is not suitable for use where an underlay with a flammability index of 5 or less is required.

## NZBC

Contributes to meeting the Performance Requirements of NZBC Clauses B2, Durability (B2.3.1 (a) 50 years, B2.3.1 (b) 15 years and B2.3.2), E2 External Moisture E2.3.2), and F2 Hazardous Building Materials F2.3.1, 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 installed by or under guidance of Licensed Building Practitioners
- » Is compatible with cladding system used.

Table 1: NZBC E2/AS1 (NZS2295) roof underlay requirements

NZBC E2/AS1 TABLE 23 (NZS2295) WALL UNDERLAY PROPERTIES	PROPERTY PERFORMANCE REQUIREMENTS	PROPERTY PERFORMANCE
Absorbency	$\geq 150\text{gsm}$	Pass
Vapour Resistance	$\leq 7 \text{ MN.s/g}$	Pass
pH of Extract	$\geq 5.5$ and $\leq 8$	Pass
Shrinkage	$\leq 0.5\%$	Pass
Water Resistance	$\geq 100\text{mm}$	Pass

## Roll Dimensions

WIDTH (MM)	LENGTH (M)	M <sup>2</sup>
1350	55	75

Available cut to length, conditions apply.  
M<sup>2</sup> is the roll size for actual coverage, allow for laps and joins.

## 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.
- » Ceiling penetrations and entry of warm air into roof cavities.
- » Occupancy activities which have high moisture loading on conditioned spaces.
- » 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 MRM Code of Practice for details.



For additional details and latest specifications [www.thermakraft.co.nz](http://www.thermakraft.co.nz)



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## INTELLIGENT MEMBRANES FOR THE BUILDING INDUSTRY

The recommendations contained in Thermakraft's literature are based on good building practice, but are not an exhaustive statement of all relevant information and are subject to any conditions contained in the Warranty. All product dimensions and performance claims are subject to any variation caused by normal manufacturing process and tolerances. Furthermore, as the successful performance of the relevant system depends on numerous factors outside the control of Thermakraft (for example quality of workmanship and design), Thermakraft shall not be liable for the recommendations in that literature and the performance of the Product, including its suitability for any purpose or ability to satisfy the relevant provisions of the Building Code, regulations and standards. Literature subject to change without notification. Latest documentation can be found on the website.