

COVERTEK™₄₀₅

**FIRE RETARDANT
SELF SUPPORTING ABSORBENT
BREATHABLE SYNTHETIC
NON WOVEN ROOF UNDERLAY**

APPLICATION AND INSTALLATION

Product Description

COVERTEK™₄₀₅ FIRE RETARDANT ABSORBENT BREATHABLE SYNTHETIC NON WOVEN ROOF UNDERLAY consists of a microporous water resistant film, sandwiched between two layers of mould and shrink resistant spun-bonded polyolefin.

Product Advantage

COVERTEK™₄₀₅ can be used in [direct fix or cavity fix for roof and wall construction](#).

COVERTEK™₄₀₅ can be used as a Roof Underlay on Timber or Metal Framed Buildings with masonry tiles, metal tiles and profiled metal roof cladding and situated in NZS 3604 Building Wind Zones up to and including 'Very High'.

Flammability



FLAMMABILITY INDEX OF ≤ 5
AS1530: PART 2 1993

COVERTEK™₄₀₅ has a Flammability Index ≤ 5 and therefore meets the requirements of NZBC Acceptable Solutions C/AS1 Part 6 Table 6.2 for surface finish requirements for suspended flexible fabric, and therefore it may be used without restrictions in all buildings.

COVERTEK™₄₀₅ is an alternative solution under the NZBC and meets the requirements of NZBC E2/AS1 Table 23 for wall and roof applications.

COVERTEK™₄₀₅ can **NOT** be used as an [AIR BARRIER](#) where walls are not lined eg. attic space at gable ends.

COVERTEK™₄₀₅ may be installed during wet adverse conditions without affecting its performance and durability.

Installation

COVERTEK™₄₀₅ can be laid vertically or horizontally on roof slopes of 8 degrees or more without support.

COVERTEK™₄₀₅ Fix using stainless steel 8-12mm staples or 20mm flat head clouts, or appropriate proprietary fastenings to suit environmental exposure requirements. Between 3° and 5° pitched roofs, Thermakraft recommends supporting **COVERTEK™₄₀₅** on **Thermakraft Safety Mesh 300mm x 150m**, hexagonal netting 50mm / 75mm, **Thermakraft Arctic Thermastrap 203**, or **Thermastrap 201**. Fix at 300mm centres. If required to achieve a lap seal (refer NZ Metal Roofing Code of Practice 4.3.8 and 4.3.9), use **Thermakraft Window Sealing Tape ALUBAND**.

COVERTEK™₄₀₅ must be installed in a manner that prevents ponding of water.

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.



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TECHNICAL SPECIFICATIONS

Product Specifications **COVERTEK 405 FIRE RETARDANT ABSORBENT BREATHABLE SYNTHETIC NON WOVEN ROOF UNDERLAY** can be used as a roof underlay on buildings within the following scope:

- the scope limitations of NZBC Acceptable Solution E2/AS1 Paragraph 1.1 with regards to building height and floor plan area; and,
- with masonry tile cladding; and,
- with metal tile and profiled metal roof cladding; and,
- situated in NZS 3604 Building Wind Zones up to, and including 'Very High'.

COVERTEK 405 installation must always be carried out in accordance with:

- Thermakraft "Application and Installation Guidelines"
- Installed by or under the direct supervision of a licensed Building Practitioner or qualified Roofer
- NZBC Acceptable Solution E2/AS1 Paragraph 8.0-8.4
- NZ Metal Roofing Manufacturers Roof and Wall Cladding - Code of Practice
- Metal Roof / Tile Manufacturers specifications

COVERTEK 405 must not be left exposed to direct sunlight or UV light sources during its serviceable life;

COVERTEK 405 must not be left exposed to the elements on the roof for more than **7** days before being covered;

COVERTEK 405 The design application and installation of **COVERTEK 405** must follow sound condensation management principles, making use of ventilation and vapour control layers where necessary.

Durability Requirements **COVERTEK 405** will meet the Performance Requirements of NZBC:

- Clauses B2 Durability B2.3.1(a) not less than 50 years and B2.3.2
- Clause C Part 6 Table 6.2: Flammability Index ≤ 5
- Clause E2 External Moisture: Performance E2.3.2 when used as part of the Roof Cladding System
- Clause F2 Hazardous Building Materials: Performance F2.3.1 will not present a health hazard to people

TABLE 1: NZBC E2/AS1 ALTERNATIVE SOLUTION TO TABLE 23 AS A ROOFING UNDERLAY REQUIREMENT

NZBC E2/AS1 TABLE 23 ROOF UNDERLAY PROPERTIES	PROPERTY PERFORMANCE REQUIREMENT	ACTUAL PROPERTY PERFORMANCE
Absorbency	$\geq 100 \text{ g/m}^2$	$\geq 150 \text{ g/m}^2$
Vapour Resistance	$< 7 \text{ MN.s/g}$	Pass
pH of Extract	$> 6 \text{ and } < 9$	Pass
Shrinkage	$< 0.5\%$	Pass
Water Resistance	$\geq 100\text{mm}$	Pass
Nominal Mass	n/a	180gsm
Flammability Index	$\leq 5 \text{ (AS1530.2)}$	Fire Retardant

Roll Dimensions 1250mm x 40m = 50m² 1250mm x 20m = 25m²

Storage **COVERTEK 405** should be stored on end in dry conditions. Protect from the weather and direct sunlight.

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.