

**5 LAYER
POLYMERIC STRUCTURE**

CI/SfB

NOVEMBER 2008

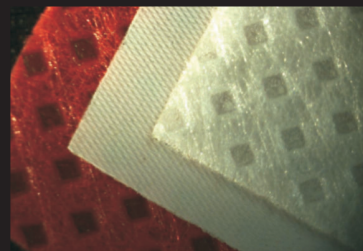
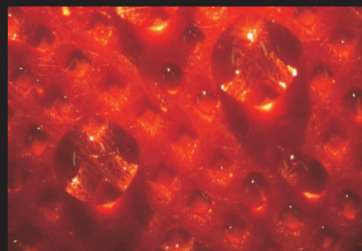
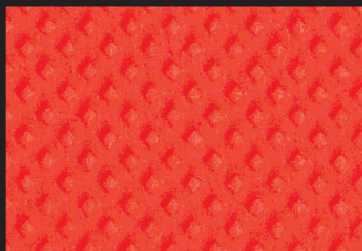
DESIGNER AND USER GUIDELINES

COVERTEKTM 407

MEMBRANES OF THE FUTURE

Thermakraft

DEVELOPED TO OVERCOME THE SHORT COMINGS OF TRADITIONAL KRAFT UNDERLAYS



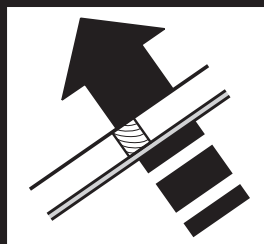
STRENGTH

BREATHER SHEET

WATER RESISTANCE

FLAMMABILITY

®



FLAMMABILITY INDEX OF ≤ 12
AS1530 PART 2 1993

**ABSORBENT BREATHABLE SYNTHETIC NON-WOVEN
SELF SUPPORTING ROOFING UNDERLAY**



Thermakraft Industries (NZ) Ltd

Product Description **COVERTEKTM407** ABSORBENT BREATHABLE SYNTHETIC NON-WOVEN SELF SUPPORTING ROOFING UNDERLAY consists of a microporous water resistant film, sandwiched between two layers of mould and shrink resistant spun-bonded polyolefin.

COVERTEKTM407 is a five layer polymer structure that is designed to prevent water penetration without impeding the passage of water vapour.

COVERTEKTM407 is manufactured with an upper layer of tear resistant red synthetic spun-bond, and a layer of tear resistant white synthetic spun-bond facing down. Both layers are designed to protect the inner water resistant microporous membrane.

Flammability **COVERTEKTM407** ABSORBENT BREATHABLE SYNTHETIC NON-WOVEN SELF SUPPORTING ROOFING UNDERLAY has a flammability index of 6. **COVERTEKTM407** can be used in all roofing applications except; when exposed to view in occupied spaces in the purpose groups listed in NZBC Acceptable Solutions C/AS1 Table 6.2, Suspended Flexible Fabrics, amended November 2008.

Product Advantages **COVERTEKTM407** ABSORBENT BREATHABLE SYNTHETIC NON-WOVEN SELF SUPPORTING ROOFING UNDERLAY is a unique five layer membrane with these important features:

- will not rot;
- is more stable and shrink resistant than kraft based products;
- may be installed during adverse conditions (rain) without affecting its surface;
- will not increase risk of condensation as compared with comparable kraft underlays;
- the breathable water resistant microporous layer is protected on either side by two tough tear resistant layers of spun-bonded polyolefin;
- has an edge tear greater than 100N;
- has a 150mm lap line printed on each edge.

Warranty **COVERTEKTM407** ABSORBENT BREATHABLE SYNTHETIC NON-WOVEN SELF SUPPORTING ROOFING UNDERLAY refer to conditions of warranty.
(Available on request:- **Thermakraft** Customer Services 0800 806 595).

Domestic Application **COVERTEKTM407** ABSORBENT BREATHABLE SYNTHETIC NON-WOVEN SELF SUPPORTING ROOFING UNDERLAY NZBC Clause E2/AS1 Paragraph 8.15.

LONG-RUN METAL ROOFING / VERTICAL OR HORIZONTAL

COVERTEKTM407 must be installed in a manner that prevents ponding of water, by allowing a span of no more than 1200mm unsupported. **COVERTEKTM407** must run vertically on roof slopes of 8 degrees or more without support.

NOTE: Refer NZ Metal Roof and Wall Cladding Code of Practice (refer paragraph 4.3.9).

COVERTEKTM407 ABSORBENT BREATHABLE SYNTHETIC NON-WOVEN SELF SUPPORTING ROOFING UNDERLAY must be laid vertically (same direction as the roof) over purlins and shall have laps of no less than 150mm. Use stainless steel 8-12mm staples or 20mm flat head galvanised clouts for temporary fixing, or appropriate fastenings.

COVERTEKTM407 in roof pitches less than 8 degrees, and to ensure condensation drains to the gutter, lay **COVERTEKTM407** vertically, fully supported, flat and taut.

To achieve a lap seal (refer to NZ Metal Roofing Code of Practice 4.3.9).

Use **Thermakraft ALUBANDTM/ALUMINIUM** (BRANZ Appraised) **Window Sealing Tape**.

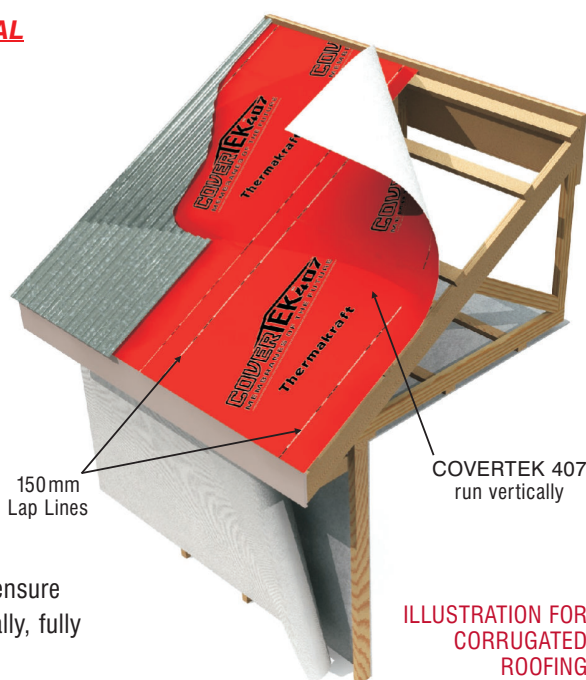


ILLUSTRATION FOR
CORRUGATED
ROOFING

COVERTEKTM407 may be unwound to the full length from the gutter to the ridge. However, when ridge ventilation is required **COVERTEKTM407** must be terminated at the ridge purlin to allow free passage of air.

Flue penetrations must have a minimum distance of 50mm from the **COVERTEKTM407** (refer to NZ Metal Roof and Wall Cladding Code of Practice 4.3.8).

COVERTEKTM407 must fit tightly and be lap taped around all penetrations to provide drainage for condensation and must be free of tears and punctures.

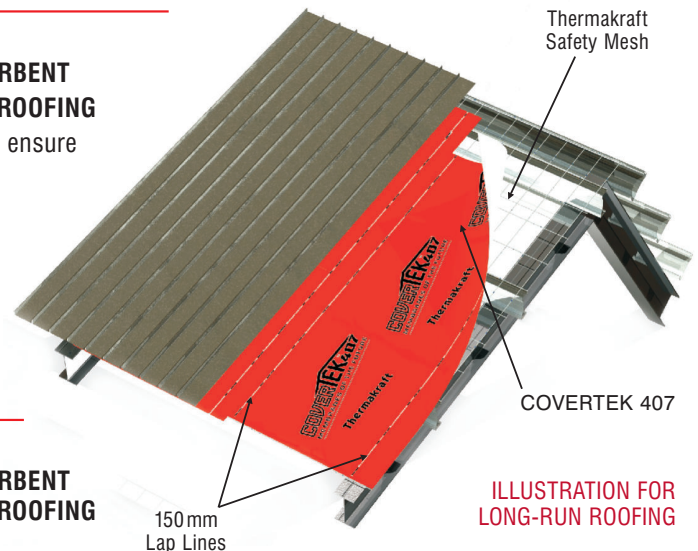
Commercial Buildings require Thermakraft Safety Mesh.

Horizontal Fix **COVERTEKTM407** ABSORBENT BREATHABLE SYNTHETIC NON-WOVEN SELF SUPPORTING ROOFING UNDERLAY upper sheet lapped over lower sheets (shiplap) to ensure water is shed to the outer face.

NOTE: **COVERTEKTM407** can move downwards. To prevent this it must be "Captured" by the fastenings.

COVERTEKTM407 is 1250mm standard width.

Horizontal fix must not be used on purlin distance greater than 1100mm.



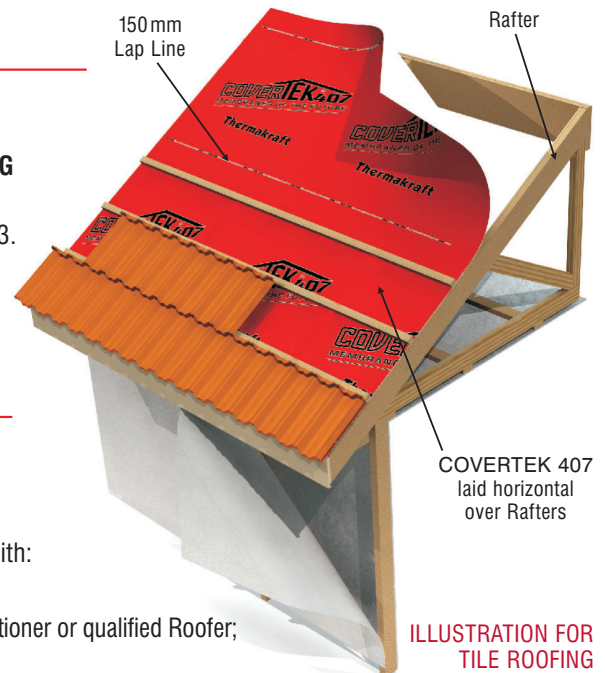
Tile Roofs **COVERTEKTM407** ABSORBENT BREATHABLE SYNTHETIC NON-WOVEN SELF SUPPORTING ROOFING UNDERLAY.

CONCRETE / METAL TILE ROOFING

COVERTEKTM407 must be laid over rafters prior to fixing tile battens. Maximum distance for **COVERTEKTM407** is 1200mm. Unsupported masonry tile roofs with pitches less than 17 degrees must have antiponding boards.

Installed **COVERTEKTM407** may be laid over the top of the antiponding boards and draped into the gutter by no more than 25mm. Antiponding boards must be treated in accordance with NZS 3602.

NOTE: Where overlap occurs under Tile Battens, minimum overlap may be reduced to 75mm.



Standards **COVERTEKTM407** ABSORBENT BREATHABLE SYNTHETIC NON-WOVEN SELF SUPPORTING ROOFING UNDERLAY is an Alternative Solution to Paper/Kraft based roofing underlay materials in terms of compliance with NZBC E2/AS1 Table 23.

COVERTEKTM407 will meet the following NZS 2295: 2006 Roof Underlays requirements; 3.2.1 Absorbency, 3.2.2 Water Resistance, 3.2.3 Shrinkage, 3.2.4 pH Extract, 3.2.5 Not Applicable, 3.3.1 Durability, 3.3.3 UV Resistance.

Installation Procedures **COVERTEKTM407** ABSORBENT BREATHABLE SYNTHETIC NON-WOVEN SELF SUPPORTING ROOFING UNDERLAY the installation must always be carried out in accordance with:

- Thermakraft "Designer and User Guidelines";
- Installed by or direct supervision of a registered or licensed Building Practitioner or qualified Roofer;
- NZBC Clause E2/AS1 Paragraph 8.0-8.5;
- NZ Metal Roof and Wall Cladding - Code of Practice;
- Metal Roof / Tile Manufacturers specifications;
- **COVERTEKTM407** must not be left exposed to direct sunlight or UV light sources during its serviceable life;
- **COVERTEKTM407** must not be left exposed to the elements on the roof for more than 7 days;
- **COVERTEKTM407** The design application and installation of **COVERTEKTM407** must follow sound condensation management principles, making use of ventilation and vapour barriers where necessary.

Performance Requirements



COVERTEKTM407 ABSORBENT BREATHABLE SYNTHETIC NON-WOVEN SELF SUPPORTING ROOFING UNDERLAY will meet the Performance Requirements NZBC:

- Clauses B2 Durability B2.3.1 (a) not less than 50 years and B2.3.1 (b) 15 years;
- Clause C Part 6, Table 6.2 **Flammability Index of less than 12;**
- 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	$\leq 7 \text{ MN.s/g}$	Pass
pH of Extract	≥ 6 and ≤ 9	Pass
Shrinkage	$\leq 0.5\%$	Pass
Water Resistance	$\geq 100\text{mm}$	Pass
Permeability $\text{g/m}^2 \text{ day}$	36	Pass

Roll Dimensions



COVERTEKTM407 ABSORBENT BREATHABLE SYNTHETIC NON-WOVEN SELF SUPPORTING ROOFING UNDERLAY

$$1250\text{mm} \times 40.0\text{m} = 50\text{m}^2$$
$$1250\text{mm} \times 20.0\text{m} = 25\text{m}^2$$

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.



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