Covertek 407 is a fire retardant, absorbent and breathable synthetic self-supporting roof and wall underlay constructed using a microporous water resistant film sandwiched between two layers of spun-bonded polyolefin. Designed as a means of managing condensation, water vapour transfer and water ingress in roof and wall applications.

ADVANTAGES

Roof
» Suitable with masonry tile roof cladding.
» Suitable with metal tile and profiled metal roof cladding.
» Roof pitches 10° or greater Covertek 407 may be run vertically or horizontally without support.*
» Roof pitches below 10° Covertek 407 may be run horizontally without support.
» Must be supported* if run vertically below 10°. Minimum roof pitch 3°.
» Will provide temporary weather protection during construction (roofs 7 days), same day coverage recommended.
» May be installed in rain.
» May be run to any length.
» Suitable for use under dark coloured roofs.
» Has a 150mm lap line printed on each edge.
» Can be used on roofs up to and including NZS 3604 Extra High wind zones.

General
» Is fire retardant*.
» Unaffected by LOSP treated timber.
» Recyclable with no VOC’s.
» Tear resistant and strong.

*Refer technical specifications

For additional details and latest specifications www.thermakraft.co.nz or scan QR code.
LONG-RUN METAL ROOFING / VERTICAL OR HORIZONTAL
INSTALLATION METHOD

1. Fix using stainless steel 8-12mm staples or 20mm flat head clouts, or appropriate proprietary fastenings.

2. Between 3° and 5° pitched roofs, Thermakraft recommends supporting Covertek 407 on Thermakraft Safety Mesh 300mm x 150m, or hexagonal netting 50mm or 75mm, and or, Thermastrap 201. Fix horizontally at 300mm centres.

3. If required to achieve a lap seal (refer to NZ Metal Roofing Code of Practice 4.3.8 and 4.3.9), use Thermakraft Aluband window sealing tape.

4. Covertek 407 may be unwound to the full length from the gutter to the ridge. However, when ridge ventilation is required Covertek 407 must be terminated at the ridge purlin to allow a free passage of air.

5. Flue penetrations must have a minimum distance of 50mm from Covertek 407 (refer to NZ Metal Roof and Wall Cladding Code of Practice 4.3.8).

6. Covertek 407 must be free of tears and punctures, fit tightly and be lap taped around all penetrations (except flue penetrations), to provide drainage for any condensation, or surface water from leaks.

NOTE: Do not use Aluband on penetrations where Polybutene water pipes have been installed. Refer Pipe Manufacturers for instructions on sealing penetrations.

NOTE: Commercial Buildings may require the use of Thermakraft Safety Mesh under Covertek 407. Covertek 407 can be installed above the battens or purlins for profiled metal roof claddings and otherwise in accordance with NZBC E2/AS1.
INSTALLATION PROCEDURES

HORIZONTAL FIX
1. Covertek 407 upper sheet lapped over lower sheets (shiplap) to ensure water is shed to the outer face.

NOTE: Covertek 407 can move downwards. To prevent this it must be “Captured” by the fastenings at each purlin. Horizontal fix must not be used on purlin distance greater than 1100mm to allow for 150mm laps.

CONCRETE / METAL TILE ROOFING
1. Covertek 407 must be laid over rafters prior to fixing the tile battens. The maximum span between rafters for Covertek 407 is 1200mm. Masonry tile roofs with pitches less than 17° must have antiponding boards in accordance with E2/AS1 Paragraph 8.2.5.
2. Installed Covertek 407 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 3604.

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

CONCRETE / METAL TILE ROOFING

METAL TILE INSTALLATION

Fastening as per roof manufacturers recommendation
Flammability Index
Thermakraft Covertek 407 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. It may therefore be used with no restrictions in all buildings.

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 installed by or under guidance of Licensed Building Practitioners.
- Is compatible with cladding system used.

Table 1: NZBC E2/AS1 underlay requirements

<table>
<thead>
<tr>
<th>PROPERTY PERFORMANCE REQUIREMENTS</th>
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<tbody>
<tr>
<td>Absorbency ≥ 150gsm</td>
<td>Pass</td>
</tr>
<tr>
<td>Vapour Resistance ≤ 7 MN.s/g</td>
<td>Pass</td>
</tr>
<tr>
<td>pH of Extract ≥ 5.5 and ≤ 8</td>
<td>Pass</td>
</tr>
<tr>
<td>Water Resistance ≥ 100mm</td>
<td>Pass</td>
</tr>
<tr>
<td>Air Resistance ≥ 0.1 MN.s/m³</td>
<td>407 can be used as an air barrier</td>
</tr>
</tbody>
</table>

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 MRM Code of Practice for details.

For additional details and latest specifications www.thermakraft.co.nz

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