

# 4711OI OUTRIGHT CONTINUOUS INSULATION

## 1 GENERAL

This section relates to the supply and installation of **Outright Continuous Insulation** IKO Enertherm ALU product providing thermal insulation for flat roofs, behind wall linings and framed walls, and floors. It includes:

- IKO Enertherm ALU Board
- and associated componentry necessary to complete the installation.

### 1.1 RELATED WORK

Refer to ~ for ~

#### Documents

### 1.2 DOCUMENTS

Refer to the general section 1233 REFERENCED DOCUMENTS. The following documents are specifically referred to in this section:

<a href="#">NZBC H1/AS1</a>	Energy efficiency
<a href="#">NZS 4218</a>	Thermal insulation - Housing and small buildings
<a href="#">NZS 4220</a>	Code of practice for energy conservation in non-residential buildings
<a href="#">NZS 4243.1</a>	Energy efficiency - Large buildings - Building thermal envelope
<a href="#">NZS 4246</a>	Energy efficiency - Installing bulk thermal insulation in residential building

### 1.3 MANUFACTURER/SUPPLIER DOCUMENTS

Manufacturer's and supplier's documents relating to this part of the work:  
Outright Product Literature

Manufacturer/supplier contact details

Company:	<b>Outright Continuous Insulation</b>
Web:	<a href="http://www.outright.co.nz">www.outright.co.nz</a>
Email:	<a href="mailto:info@outright.co.nz">info@outright.co.nz</a>
Telephone:	09 579 2046

#### Warranties

### 1.4 WARRANTY - MANUFACTURER/SUPPLIER

Provide a material manufacturer/supplier warranty:  
20 years For IKO Enertherm

- Provide this warranty on the manufacturer/supplier standard form (if not available then use the standard form in the general section 1237WA WARRANTY AGREEMENT)
- Commence the warranty from the date of practical completion of the contract works

Refer to the general section 1237 WARRANTIES for additional requirements.

#### Requirements

### 1.5 QUALIFICATIONS WORKERS - LICENSED UNDER STATUTE

Workers and supervisors to be Licensed Building Practitioners (LPB). Refer to 1270 CONSTRUCTION for additional requirements relating to qualifications.

### 1.6 NO SUBSTITUTIONS

Substitutions are not permitted to any of the Outright Continuous Insulation specified systems, components and associated products listed in this section.

#### Performance

### 1.7 ENERGY EFFICIENCY

Maintain the energy efficiency requirements to [NZBC H1/AS1](#), 2.0 Building thermal envelope. Install to [NZS 4218](#) for small buildings, to [NZS 4243.1](#) for large buildings and to the Outright Continuous Insulation technical requirements.

## **Materials**

### **2.1 INSULATION BOARD - FOR USE BEHIND WALL LININGS AND FRAMED WALLS**

IKO Enertherm ALU Board, a high performance, fibre-free rigid PIR insulation, faced on both sides with a low emissivity composite foil bonded to the insulation during manufacture.

Designed to thermally insulate concrete, block and framed walls.

Supplied in a 60mm thick, 1200mm x 600mm board with a tongue and groove edge to form an air barrier.

Straight edge board, 2270mm x 1200mm, is also available in a range of thicknesses and R-values. Refer to SELECTIONS for options.

## **Components**

### **2.2 FASTENERS - GENERALLY**

Fasteners to suit the particular application in accordance with Outright installation instructions.

### **2.3 TAPE**

IKO Foil Tape, aluminium foil tape, minimum of 48mm and 96mm wide.

### **2.4 EXPANDING FOAM**

IKO Expanding foam, compatible with IKO Enertherm ALU boards.

## **3 EXECUTION**

### **Conditions**

#### **3.1 DELIVERY, STORAGE & HANDLING OF PRODUCTS**

Refer to 1270 CONSTRUCTION for requirements relating to delivery, storage and handling of products.

#### **3.2 ROUTINE MATTERS**

Refer to 1250 TEMPORARY WORKS & SERVICES for protection requirements.

Refer to 1270 CONSTRUCTION for requirements relating to defective or damaged work, removal of protection and cleaning.

### **Installation - generally**

#### **3.3 INSTALL INSULATION - GENERAL**

Lay, install, fit and fix to [NZBC H1/AS1](#): Energy efficiency, 2.0 Building thermal envelope, and to manufacturer's requirements. Install in housing to [NZS 4218](#) and [NZS 4246](#). Install in large buildings to [NZS 4243.1](#) and [NZS 4220](#). Do not cover vents. Allow a clear gap around metal flues as recommended by the fireplace manufacturer.

Lift up electrical wires, lighting transformers/controllers and lay the insulation underneath.

#### **3.4 PIPES AND PLUMBING**

Cut holes in the IKO Enertherm board with a sharp knife and notch around obstacles such as pipes and plumbing.

#### **3.5 ELECTRICAL CABLES**

Fit IKO Enertherm Board behind or in front of electrical wiring and plumbing. Ensure there are no gaps or undesirable compression at edges.

Use extreme caution when working around electrical cables.

#### **3.6 CHECK FOILS**

Ensure foils are dry, clean, bright, undamaged and free of debris before being covered.

#### **3.7 CHECK WALL AND ROOF UNDERLAYS**

Ensure these are dry, clean, undamaged and free of debris before being covered.

#### **3.8 CHECK VAPOUR BARRIERS**

Ensure these form one homogeneous sheet vapour barrier and remain as such throughout the ensuing construction process.

#### **3.9 INSULATION BOARD - CUTTING**

Cut IKO Enertherm Board by using a fine-toothed saw or by scoring with a sharp knife, snapping the board over a straight edge and then cutting the facing on the other side. Ensure joints are close-buttet to maintain continuity of insulation.

### **Installation - IKO Enertherm ALU board, with weatherboard cladding or fibre cement sheet cladding**

#### **3.10 INSTALL INSULATION - STEEL & TIMBER FRAMED WALL, EXTERNAL SIDE OF FRAME**

Install IKO Enertherm ALU Board to steel or timber framed walls to Outright installation instructions and as follows:

- Stud spacing to be maximum of 600mm centres.
- After wall underlay or RAB board has been installed, fix IKO Enertherm ALU Board to external face of frame with vertical joints to coincide with studs, where appropriate
- Slot boards together to provide a continuous insulation layer and air barrier.
- Install one IKO Fix fixing per sheet to hold boards in place temporarily.
- Use expanding foam to fill all gaps between the boards, or between the boards and the structure so a complete air barrier is created.
- Select either T&G board or straight edge board dependent on wall size and thermal value required.

#### **3.11 APPLY TAPE TO INSULATION BOARD**

Tape all board joints with a minimum 48mm wide foil tape.

- Remove dust, dirt or oil and clean surface of board with a dry cloth before applying tape.
- Remove liner on tape 500mm at a time and press adhesive firmly on to the insulation. Do not stretch tape.
- Ensure tape is applied over the centre of the join so that there is adequate area on both sides of the joint.
- Wipe tape firmly from the centre out (like wallpaper) with a plastic squeegee. The more pressure applied, the greater the bond surface.
- Cut and fit tape with a knife and scissors. Repeat wiping instructions as above.

#### **3.12 INSTALL CLADDING AND CLADDING BATTENS**

Install cladding as follows:

- Install cladding on H3.1 timber battens or metal batten system fixed vertically to the wall frame through the insulation board, ensuring that the joints coincide with studs, top and bottom plates. Ensure fixings coincide with underlying timber or steel studs, top and bottom wall plates.
- Fix external cladding to secondary support battens to the appropriate cladding section(s) specification.

### **Installation - IKO Enertherm ALU board, with brick veneer cladding**

#### **3.13 INSTALL INSULATION BOARD - BRICK VENEER WALL, EXTERNAL SIDE OF FRAME**

Install IKO Enertherm ALU Board to brick veneer wall to Outright installation instructions and as follows:

- Stud spacing to be maximum of 600mm centres.
- After wall underlay or RAB board has been installed, fix IKO Enertherm ALU Board to external face of frame with vertical joints to coincide with studs, where appropriate.
- Slot boards together to provide a continuous insulation layer and air barrier.
- Install one IKO Fix fixing per sheet to hold boards in place temporarily.
- Use expanding foam to fill all gaps between the boards, or between the boards and the structure so a complete air barrier is created.
- Select either T&G board or straight edge board dependent on wall size and thermal value required.

#### **3.14 APPLY TAPE TO INSULATION BOARD**

Tape all board joints with a minimum 96mm wide foil tape.

- Remove dust, dirt or oil and clean surface of board with a dry cloth before applying tape.
- Remove liner on tape 500mm at a time and press adhesive firmly on to the insulation. Do not stretch tape.
- Ensure tape is applied over the centre of the join so that there is adequate area on both sides of the joint.
- Wipe tape firmly from the centre out (like wallpaper) with a plastic squeegee. The more pressure applied, the greater the bond surface.
- Cut and fit tape with a knife and scissors. Repeat wiping instructions as above.

#### **3.15 INSTALL CLADDING - BRICK VENEER WALL**

Install brick veneer as follows:

- Screw fix brick veneer ties, through the insulation board, to the framing to support external wall.
- Construct brick veneer wall to the appropriate masonry veneer section(s) specification.

### **Installation - IKO Enertherm ALU board, flat or warm roofs**

#### **3.16 INSTALL INSULATION - FLAT OR WARM ROOF APPLICATIONS**

Refer to section 4221N NURAPLY MEMBRANE ROOFING & DECKING for specification details for flat or warm roof applications, as a component of the Nuratherm insulated roof system.

## Completion

### 3.17 COMPLETION MATTERS

Refer to 1270 CONSTRUCTION for completion requirements and if required commissioning requirements.

## 4 SELECTIONS

For further details on selections go to [www.outright.co.nz](http://www.outright.co.nz).

Substitutions are not permitted to the following, unless stated otherwise.

### Materials

#### 4.1 OUTRIGHT CONTINUOUS INSULATION - IKO ENERTHERM ALU, T&G BOARD

Location:	~
Manufacturer:	IKO Enertherm
Supplier:	Outright Continuous Insulation
Brand/type:	IKO Enertherm ALU Board
Board size:	1200mm x 600mm
Construction type:	~
Thickness:	60mm
R value:	R2.73

#### 4.2 OUTRIGHT CONTINUOUS INSULATION - IKO ENERTHERM ALU, STRAIGHT EDGE BOARD

Location:	~
Manufacturer:	IKO Enertherm
Supplier:	Outright Continuous Insulation
Brand/type:	IKO Enertherm ALU Board
Board size:	2270mm x 1200mm
Construction type:	~
Thickness:	~
R value:	~

## Work Section Q&A

Select location that requires IKO Enertherm ALU Board thermal insulation:

Behind steel/timber framed walls with weatherboard (timber/fibre cement) or fibre cement cladding

What type of board profile do you require with steel/timber framed walls?

T&G profile: 2.1, 3.10, 3.11, 3.12, 4.1

Straight edge profile (more suitable for roofs or large wall areas) : 2.1, 3.10, 3.11, 3.12, 4.2

Not sure select later: 2.1, 3.10, 3.11, 3.12, 4.1, 4.2

Exterior side of frame in brick veneer walls

What type of board profile do you require with brick veneer walls?

T&G profile: 2.1, 3.13, 3.14, 3.15, 4.1

Straight edge profile (more suitable for roofs or large wall areas): 2.1, 3.13, 3.14, 3.15, 4.2

Not sure, select later: 2.1, 3.13, 3.14, 3.15, 4.1, 4.2

As a component of flat or warm roof applications

What type of board profile do you require with flat or warm roofs?

T&G profile: 2.1, 3.16, 4.1

Straight edge profile (more suitable for roofs): 2.1, 3.16, 4.2

Not sure, select later: 2.1, 3.16, 4.1, 4.2

Not sure, select later: 2.1, 3.10, 3.11, 3.12, 3.13, 3.14, 3.15, 3.16, 4.1, 4.2