



IndiNature[®]
Bio-based construction systems

IndiBreathe Flex

NEW BUILD INSTALL GUIDE

1

Timber Frame New Build

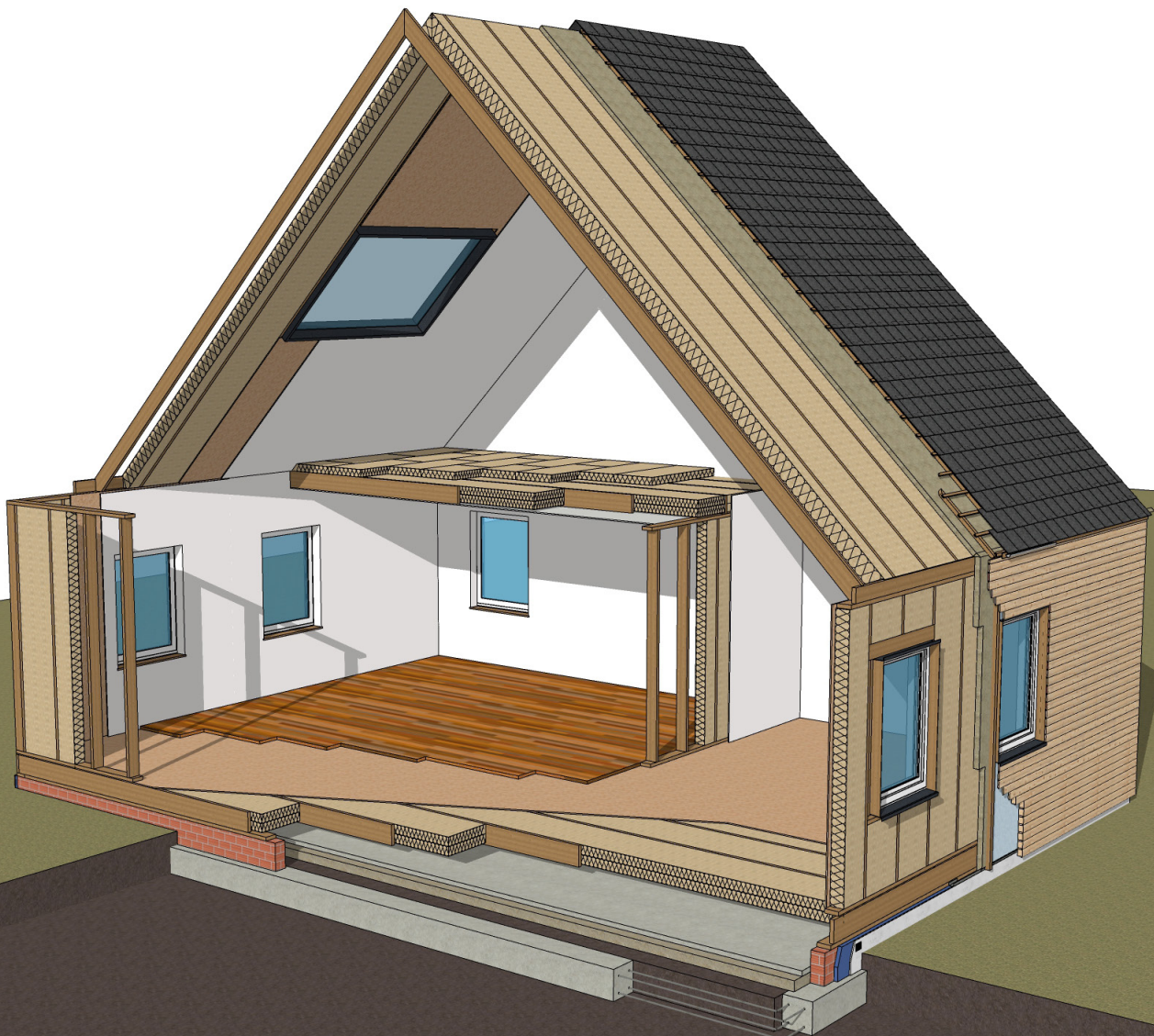
This chapter provides the detailing guidelines to ensure the correct installation and optimal performance of IndiBreathe Flex insulation in timber frame buildings with timber cladding.

Product information section:

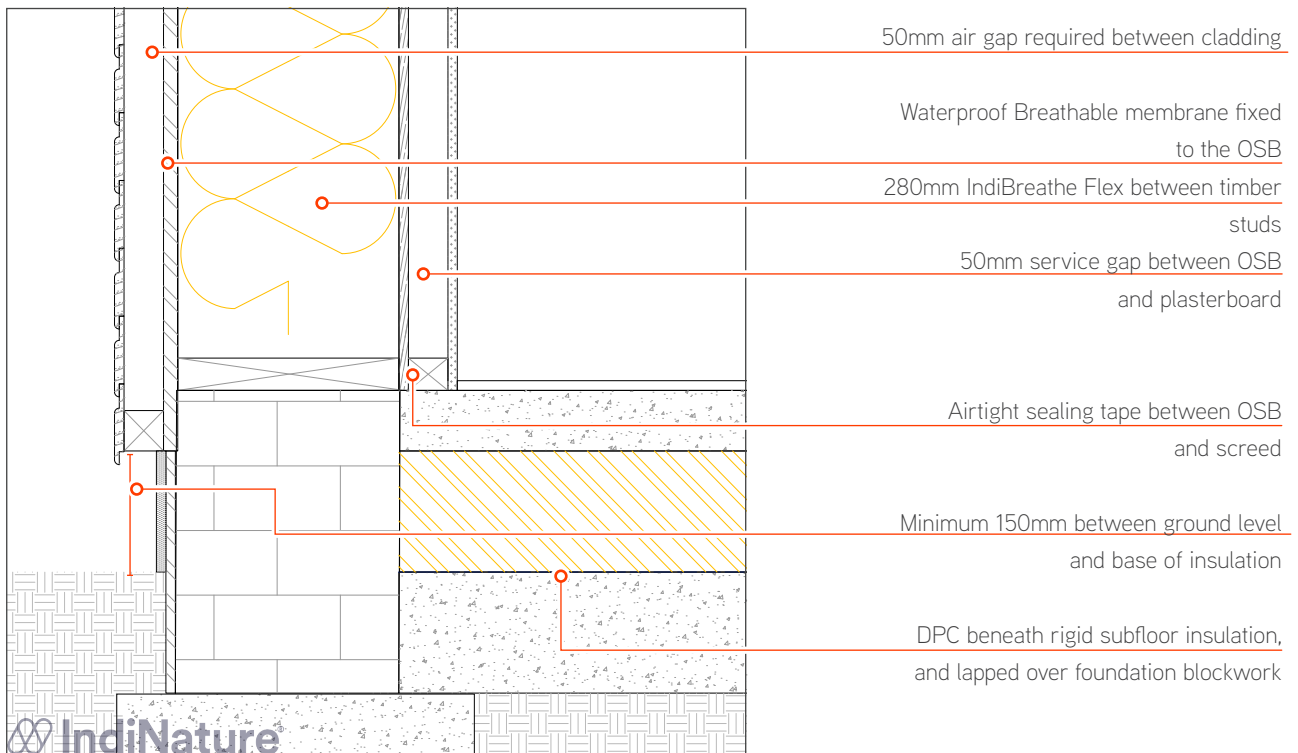
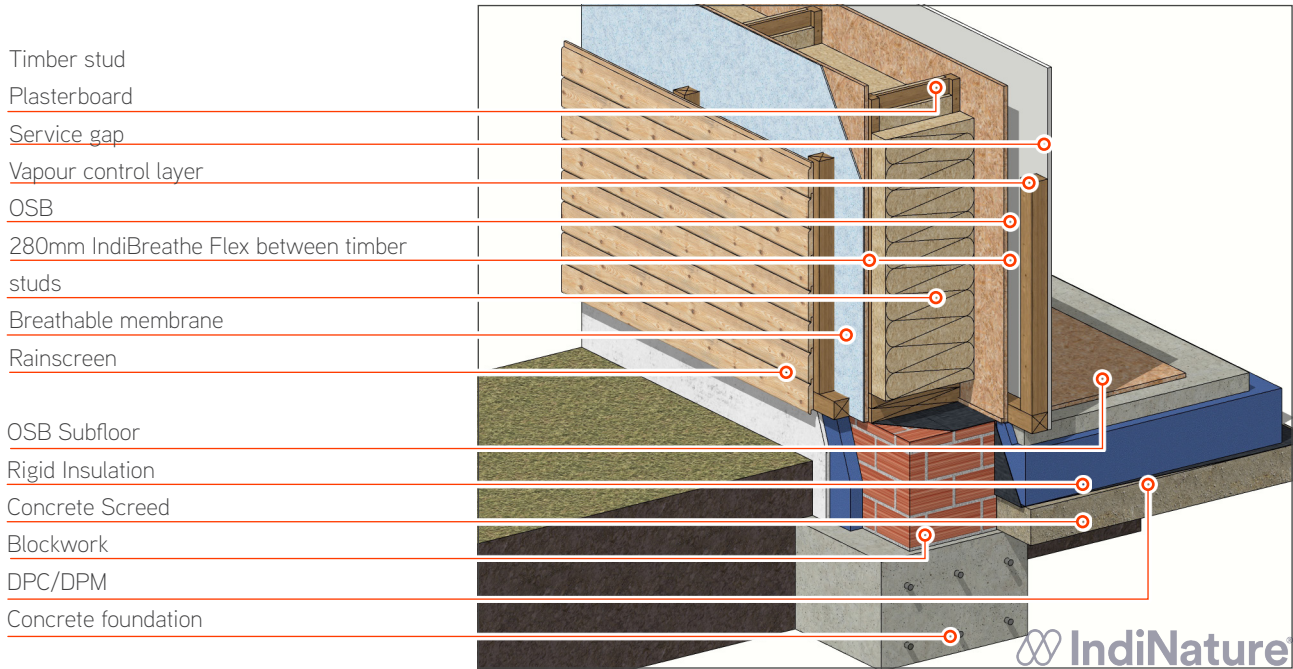
All IndiNature products are easy to handle, cut and install. Care should be taken to make sure all material friction fits between timber studs so as to minimise any air gaps. Product should be installed in a clean, dry condition in a dry application and not be left permanently exposed to the elements. For cutting please see cutting guide at the end of this document.

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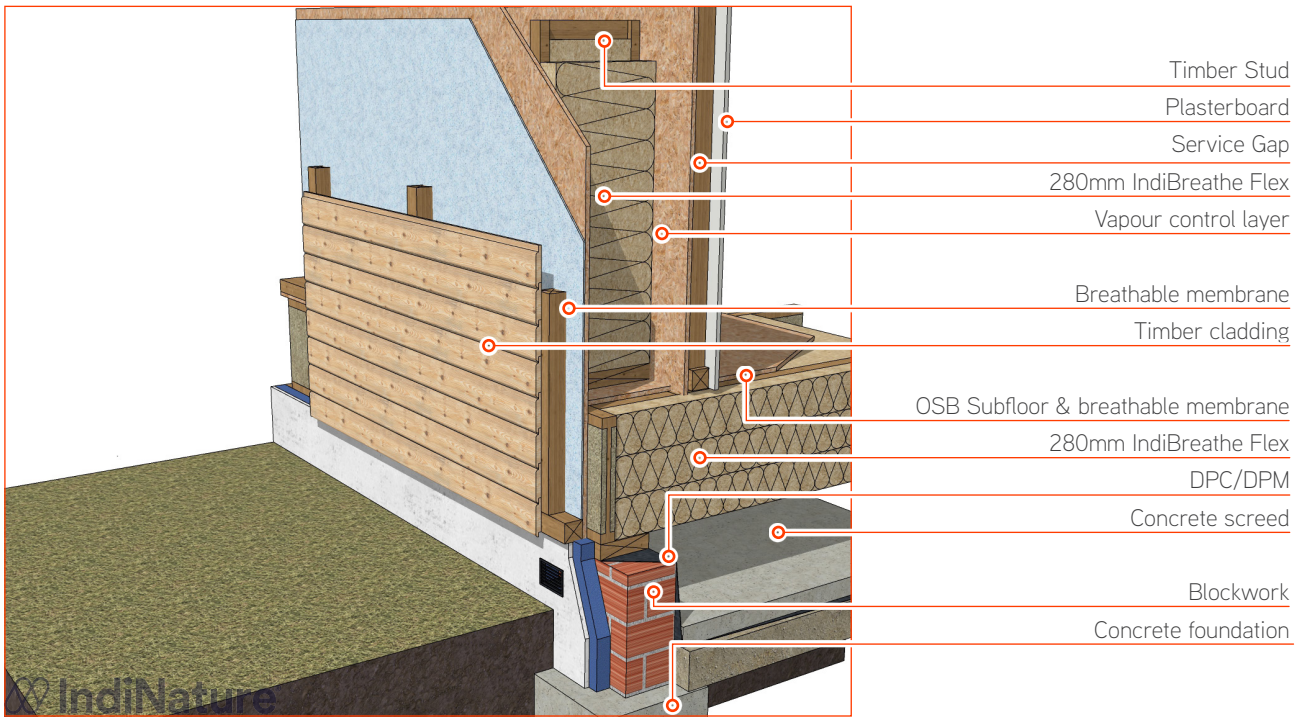
- 1.1 Foundation
- 1.2 Foundation, Suspended Floor
- 1.3 Intermediate Floor
- 1.4 Warm Roof
- 1.5 Cold Roof
- 1.6 Window, Sil, Jamb, Head



1.1 Conventional timber frame house foundation, using concrete strips and a solid slab floor

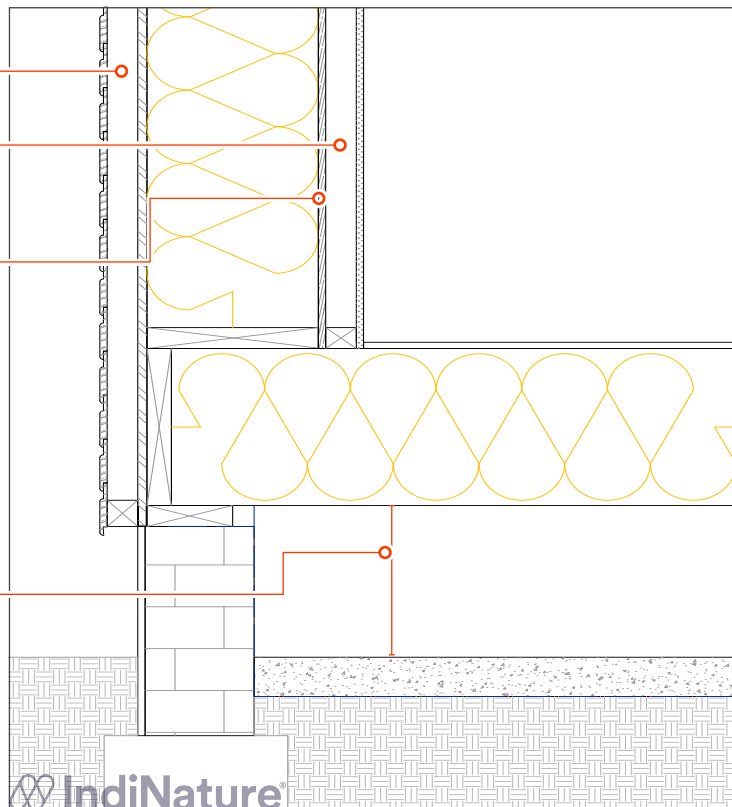


Conventional timber frame house foundation, using concrete strip, and a suspended floor with a crawl space



50mm air gap required between cladding and OSB
50mm service gap between OSB and plasterboard
Waterproof membrane fixed to the inside of the insulation should be breathable to allow vapour passage through the wall

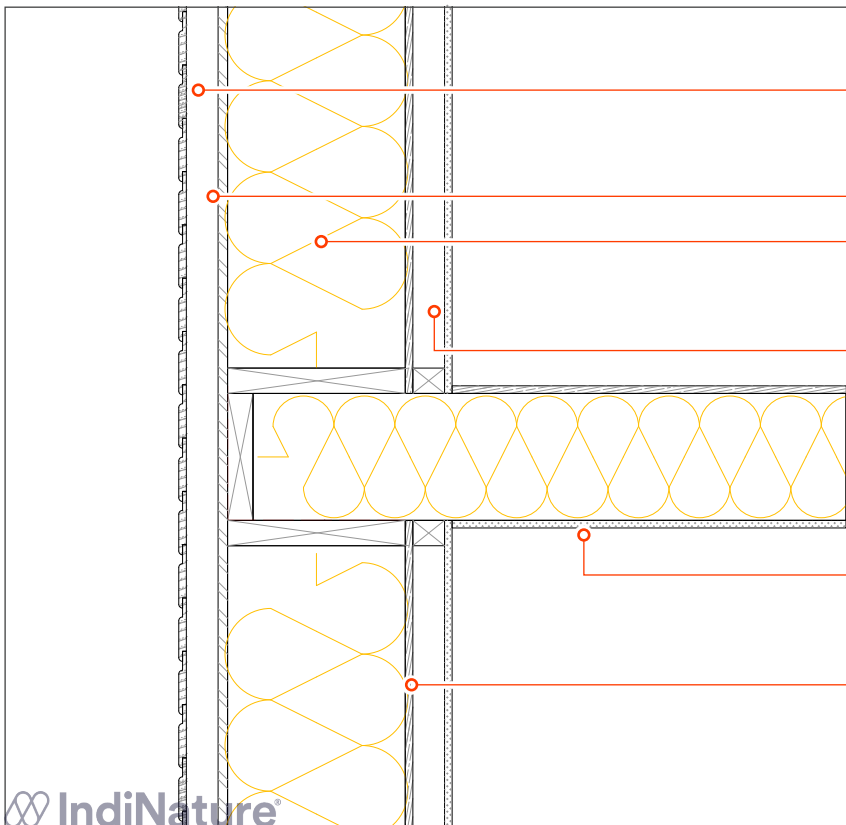
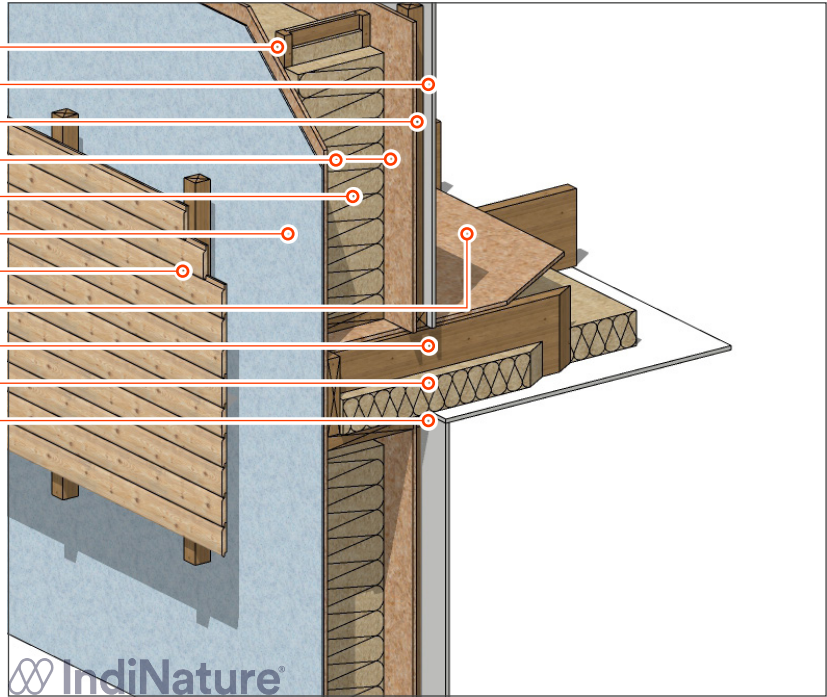
Minimum 150mm between ground level and base of insulation



1.3 Insulating and sealing around an intermediate floor

Intermediate Floor

- Timer stud
- Plasterboard
- Service Gap
- OSB
- 280mm IndiBreathe Flex
- Breathable Membrane
- Rainscreen
- OSB Subfloor
- Timber floor joists
- IndiSilence/IndiBreathe Flex
- Plasterboard



50mm air gap required between cladding and OSB board.

Waterproof membrane fixed to the outside of the insulation
280mm IndiBreathe Flex between timber studs

50mm service gap between OSB and plasterboard.

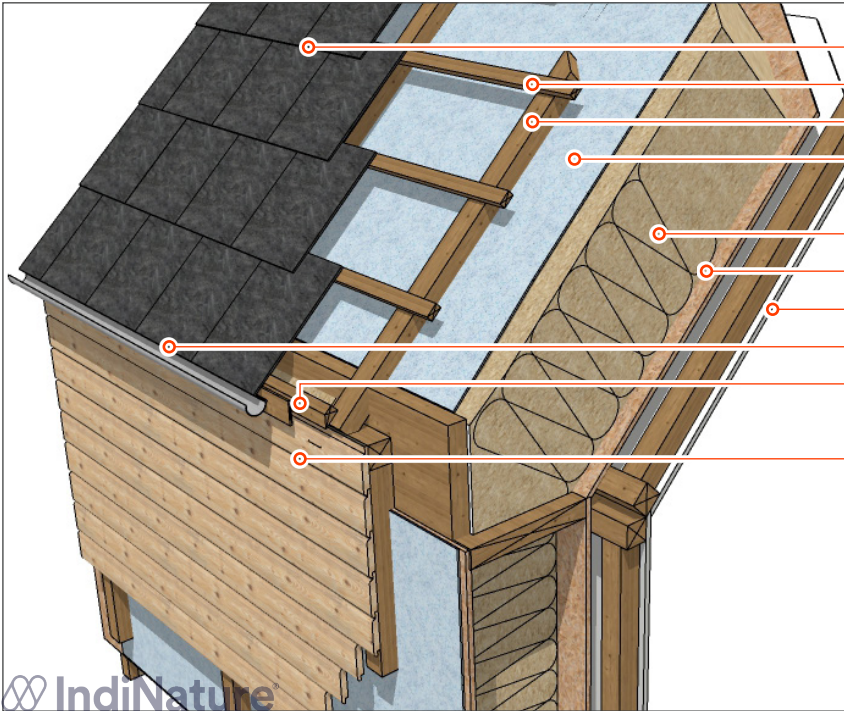
Plasterboard ceiling and IndiBreathe Flex fitted between floor joists to minimise sound transmission between levels.

Vapour control layer should be sealed with airtight tape to the OSB layers in order to maintain air tightness.

Insulating the roof to create a warm loft space

1.4

Loft – Warm Roof



- Roof Tiles
- Counter-Batten
- Batten
- Breathable Membrane
- 340mm IndiBreathe Flex between and over roof rafters
- OSB
- Plasterboard
- Gutter
- Weatherboard
- Rainscreen



Roof finish to designers specification

Min. 50mm continuous ventilation gap between tiles and insulation

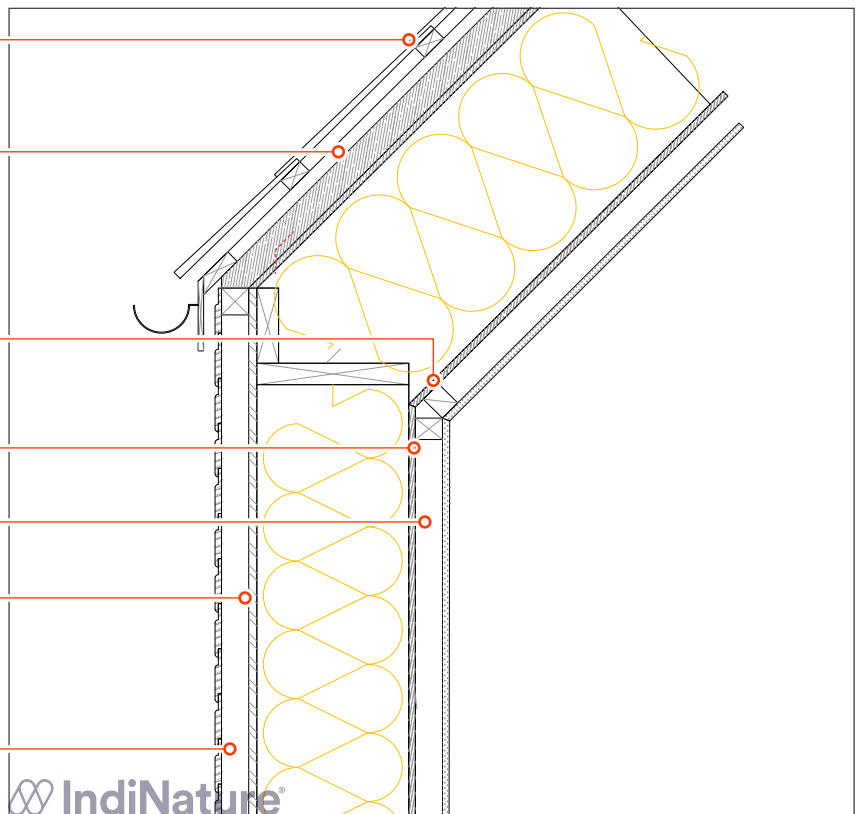
Joint between wall and roof to be sealed with tape

OSB sealed with tape to form air tight layer

50mm service gap between OSB and plasterboard

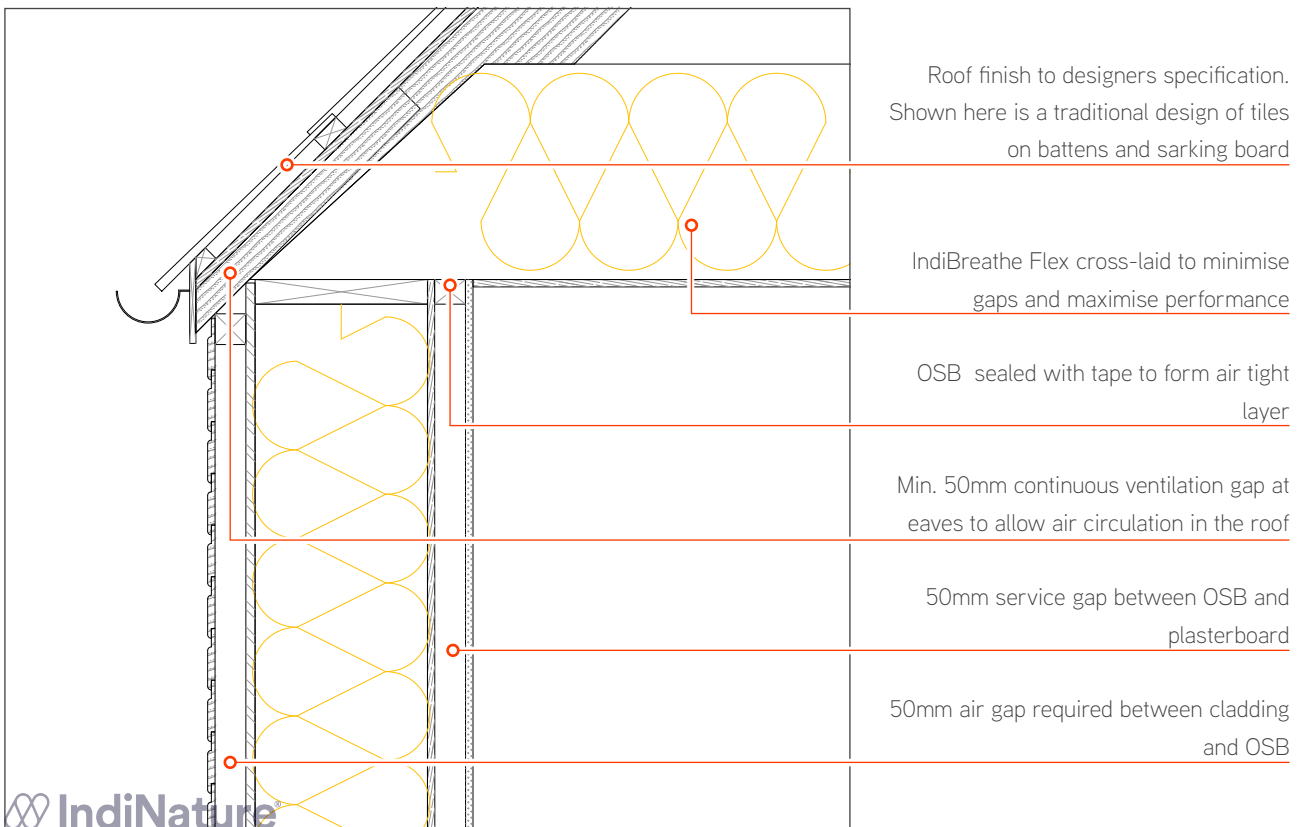
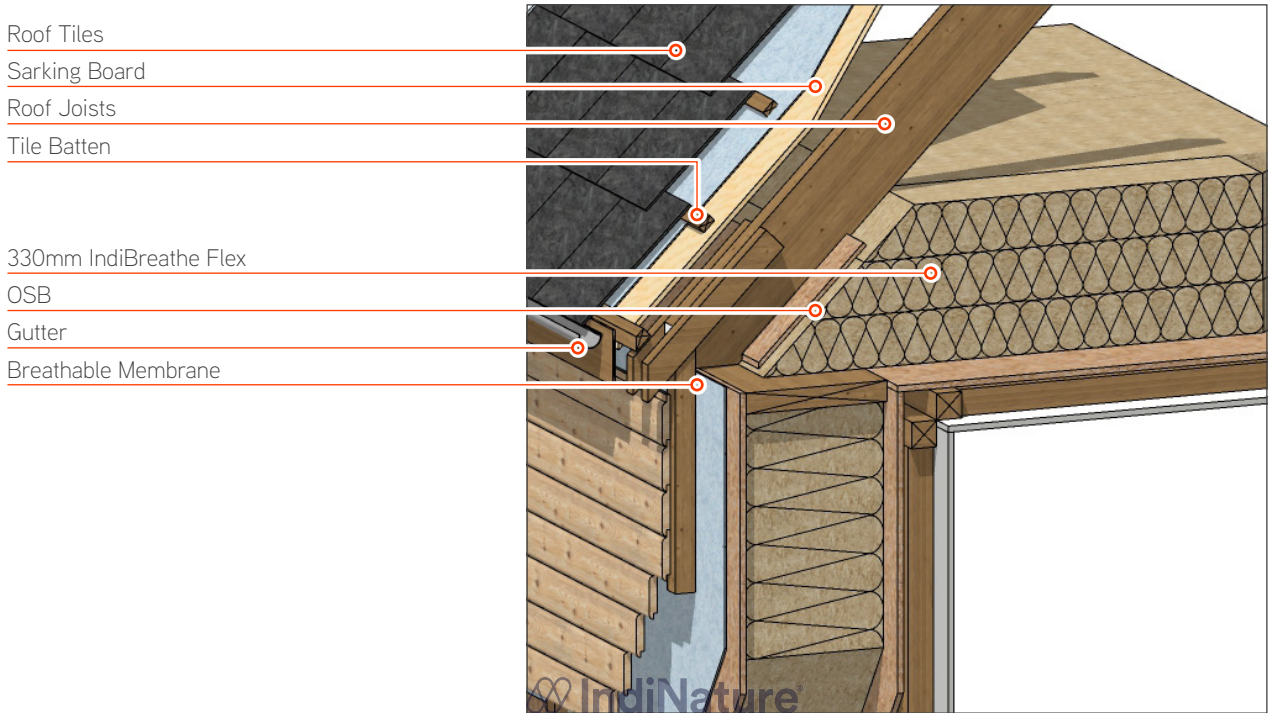
Waterproof membrane fixed to the outside of the insulation

50mm air gap required between cladding and rigid insulation

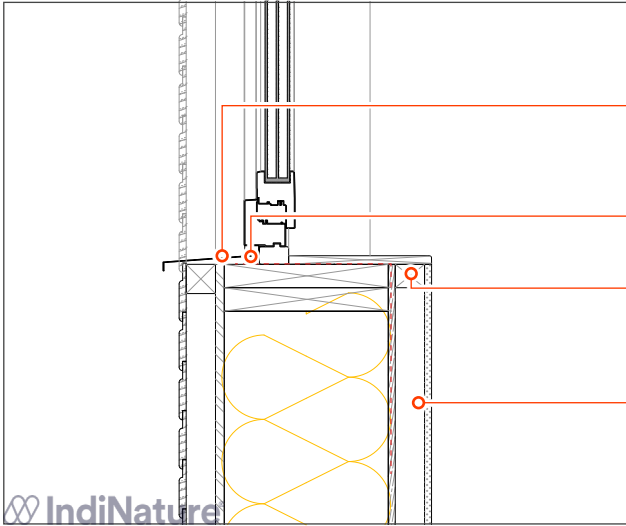


1.5 Insulating the roof to create a cold loft space

Loft - Cold Roof



Insulating and sealing around window openings



Window Sill

Double sided tape to externally seal insulation to window sill

Silicone sealed sill fixings

Airtight membrane taped to OSB to maintain airtight layer

50mm service gap between OSB and plasterboard

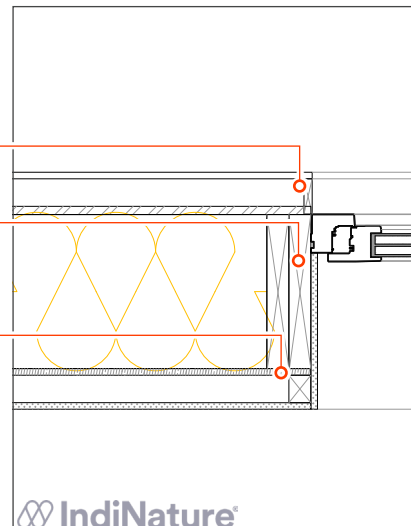


Window Jamb

Timber board matching cladding to protect the wall insulation

Expanding foam to fully fill shim space

Airtight membrane taped to OSB to maintain airtight layer

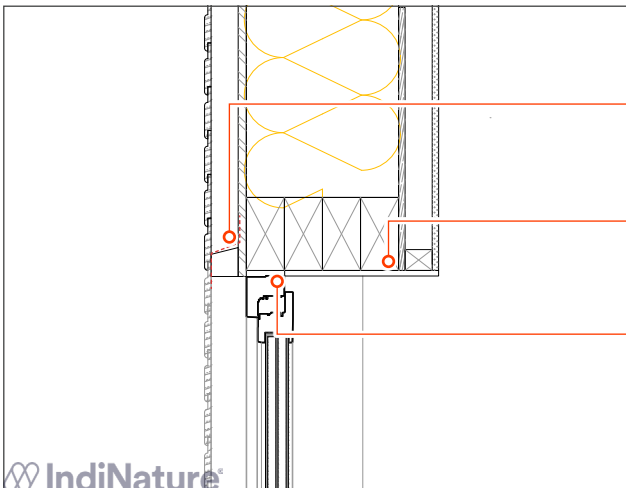


Window Head

Breathable DPM membrane drip fixed to 25mm x 50mm batten

Airtight membrane taped to OSB to maintain airtight layer

Expanding foam to fully fill shim space



Insulating and sealing around window openings

Window Sill

IndiBreathe Flex

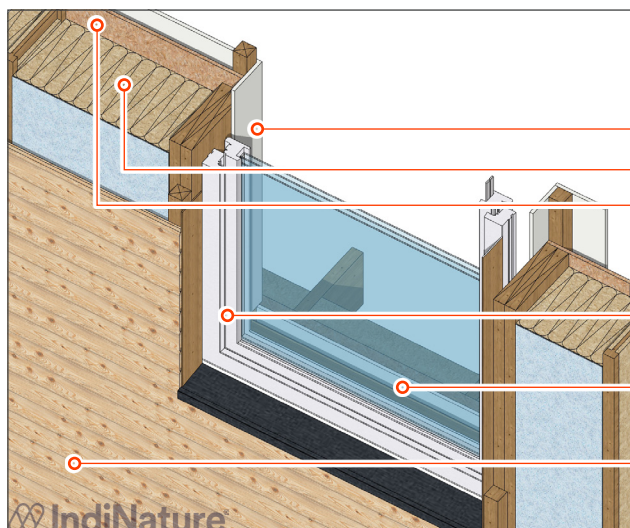
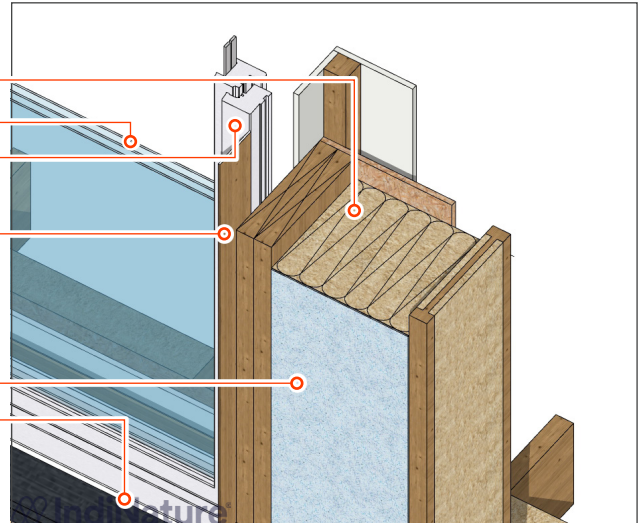
Triple Glazing

Window Frame

Silicone Sealed Fixing

Taped Breathable Membrane

Aluminium Sill



Window Jamb

Plasterboard

IndiBreathe Flex

OSB

Window Frame

Triple Glazing

Timber Cladding

Window Head

OSB

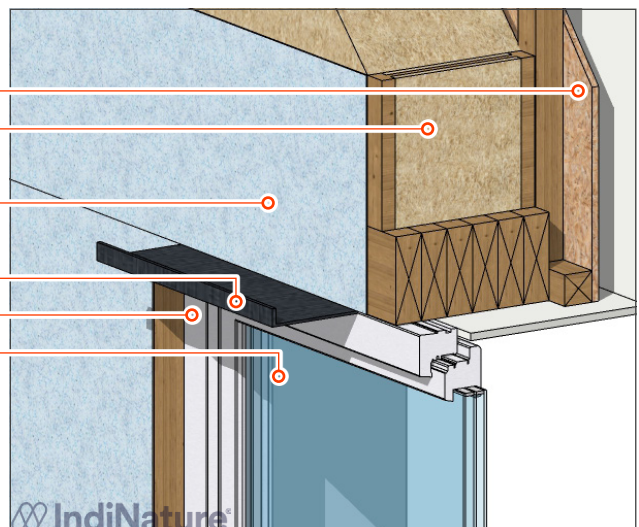
IndiBreathe Flex

Breathable Membrane

Aluminium window head

Window Frame

Triple Glazing



Equipment: Product Cutting guide

IndiNature's products can be cut to size using a number different tools. This sheet provides guidance and examples of recommended tools for cutting easily and quickly. Other tools are available.

Bahco Insulation Specific Hand Saw & Knife

Bahco manufacture a hand saw with 'wave-formed' blade which are specifically designed to cut insulation and is preferable to dulled hand saws while still being an inexpensive solution. This saw can easily be found in online trade stores.

Maintenance: blade sharpener supplied separately and recommended before each installation. Silica in the hemp will dull blades over time.



DeWalt Cordless Alligator Saw

DeWalt manufacture a cordless saw capable of cutting a range of materials. This solution is a more expensive one, but is worth considering for larger projects or tradesmen who will be working frequently with insulation materials. This tool can easily be found in online trade stores.



Festool Cordless Insulation Saw

The Festool Insulation Material saw is specifically designed for cutting insulation materials quickly, with minimal effort, and maximum precision. It can be bought with a range of guides and accessories to ensure a precise cutting. It is much more compact than the DeWalt alligator saw which increases its convenience in both transport and use. It is the most expensive tool on this list, and as such we would only recommend this for very large projects or trade use.



End cutting

Product widths are designed to fit 400, 470 & 600 joists for tight friction fit.

If cutting the edge or end of a flexi-batt:

- **Less than 20mm** – No need to cut. The material should compress for a good friction fit.
- **Up to 50mm** – draw a line or compress with timber board on top of the batt and cut along the edge to help accuracy and avoid an uneven cut.

For over 20 years, Ecological Building Systems has been at the forefront of environmental and sustainable building products supplying a range of innovative airtightness solutions and natural insulations backed up with expert technical support.

As product suppliers in the UK and Ireland, we're happy to assist you with your projects and have expert technical and sales advice on hand.



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