

Insulfix Ltd

Hadleigh Business Centre
Crockatt Road
Lady Lane Industrial Estate
Hadleigh
Ipswich IP7 6RH

Tel: 01787 207203

e-mail: info@insulfix.co.uk

website: insulfix.co.uk



Agrément Certificate

22/5987

Product Sheet 1

INSULFIX LIMITED

INSULFIX TRACK

This Agrément Certificate Product Sheet⁽¹⁾ relates to the Insulfix Track, a profiled extruded uPVC track used to retain rigid PIR insulation boards between timber rafters, in tiled or slated pitched roofs of new or existing domestic and non-domestic buildings.

(1) Hereinafter referred to as 'Certificate'.

CERTIFICATION INCLUDES:

- factors relating to compliance with Building Regulations where applicable
- factors relating to additional non-regulatory information where applicable
- independently verified technical specification
- assessment criteria and technical investigations
- design considerations
- installation guidance
- regular surveillance of production†
- formal three-yearly review.†



KEY FACTORS ASSESSED

Practicability of installation — the product is designed to be installed by a competent general builder, or a contractor, experienced with this type of product (see section 5).

Condensation — the product will not significantly increase the risk of condensation occurring within a roof (see section 6).

Behaviour in relation to fire — the Certificate holder has not declared a reaction to fire classification to BS EN 13501-1 : 2018, and its use is restricted in some cases (see section 7).

Durability — under normal service conditions, the product will remain effective for the life of the roof in which it is incorporated (see section 9).

The BBA has awarded this Certificate to the company named above for the product described herein. This product has been assessed by the BBA as being fit for its intended use provided it is installed, used and maintained as set out in this Certificate.

On behalf of the British Board of Agrément

Date of First issue: 14 January 2022

A handwritten signature in black ink, appearing to read 'Hardy Giesler'.

Hardy Giesler
Chief Executive Officer

This Certificate was amended on 22 May 2024 as part of a transition of The BBA Agrément Certificate scheme delivered under the BBA's ISO/IEC 17020 accreditation. This Certificate was issued originally under accreditation to ISO/IEC 17065. Sections marked with the symbol † are not issued under accreditation. Full conversion to the ISO/IEC 17020 format will take place at the next Certificate review. The BBA is a UKAS accredited Inspection Body (No.4345). Readers MUST check the validity of this Agrément Certificate by either referring to the BBA website or contacting the BBA directly. Any photographs are for illustrative purposes only, do not constitute advice and must not be relied upon.

British Board of Agrément

Bucknalls Lane
Watford
Herts WD25 9BA

©2022

tel: 01923 665300
clientservices@bbacerts.co.uk
www.bbacerts.co.uk

Regulations

In the opinion of the BBA, the Insulfix Track, if installed, used and maintained in accordance with this Certificate, can satisfy or contribute to satisfying the relevant requirements of the following Building Regulations (the presence of a UK map indicates that the subject is related to the Building Regulations in the region or regions of the UK depicted):



The Building Regulations 2010 (England and Wales) (as amended)

Requirement:	B4(1)	External fire spread
Comment:		Use of the product is restricted by this Requirement in some cases. See sections 7.1 and 7.2 of this Certificate.
Requirement:	C2(c)	Resistance to moisture
Comment:		The product can contribute to satisfying this Requirement. See section 6.1 of this Certificate.
Regulation:	7(1)	Materials and workmanship
Comment:		The product is acceptable. See section 9 and the <i>Installation</i> part of this Certificate.
Regulation:	7(2)	Materials and workmanship
Comment:		The product is restricted by this Regulation. See sections 7.1 and 7.2 of this Certificate.



The Building (Scotland) Regulations 2004 (as amended)

Regulation:	8(1)	Durability, workmanship and fitness of materials
Comment:		The product is acceptable. See section 9 and the <i>Installation</i> part of this Certificate.
Regulation:	9	Building standards applicable to construction
Standard:	2.4	Cavities
Comment:		Use of the product is restricted by this Standard in some cases, with reference to clauses 2.4.4 ⁽¹⁾ and 2.4.6 ⁽²⁾ . See sections 7.1 and 7.3 of this Certificate.
Standard:	2.6	Spread to neighbouring buildings
Comment:		The product is restricted by this Standard in some cases, with reference to clauses 2.6.5 ⁽¹⁾ and 2.6.6 ⁽²⁾ . See sections 7.1 and 7.3 of this Certificate.
Standard:	3.15	Condensation
Comment:		The product can contribute to satisfying this Standard, with reference to clauses 3.15.1 ⁽¹⁾⁽²⁾ , 3.15.3 ⁽¹⁾⁽²⁾ , 3.15.5 ⁽¹⁾⁽²⁾ and 3.15.7 ⁽¹⁾⁽²⁾ . See section 6.1 of this Certificate.
Regulation:	12	Building standards applicable to conversions
Comment:		Comments made in relation to this product under Regulation 9, Standards 1 to 6, also apply to this Regulation, with reference to clause 0.12.1 ⁽¹⁾ and Schedule 6 ⁽¹⁾ .

(1) Technical Handbook (Domestic).

(2) Technical Handbook (Non-Domestic).



The Building Regulations (Northern Ireland) 2012 (as amended)

Regulation:	23	Fitness of materials and workmanship
Comment:		The product is acceptable. See section 9 and the <i>Installation</i> part of this Certificate.
Regulation:	29	Condensation
Comment:		The product can contribute to satisfying this Regulation. See section 6.1 of this Certificate.

Regulation: 36(a)

External fire spread

Comment:

Use of the product is restricted by this Regulation in some cases. See sections 7.1 and 7.2 of this Certificate.

Construction (Design and Management) Regulations 2015 Construction (Design and Management) Regulations (Northern Ireland) 2016

Information in this Certificate may assist the client, designer (including Principal Designer) and contractor (including Principal Contractor) to address their obligations under these Regulations.

See section: 11 *General* (11.4) of this Certificate.

Additional Information

NHBC Standards 2022

In the opinion of the BBA, the Insulfix Track, if installed, used and maintained in accordance with this Certificate, can satisfy or contribute to satisfying the relevant requirements in relation to *NHBC Standards*, Chapter 7.2 *Pitched Roofs*.

Technical Specification

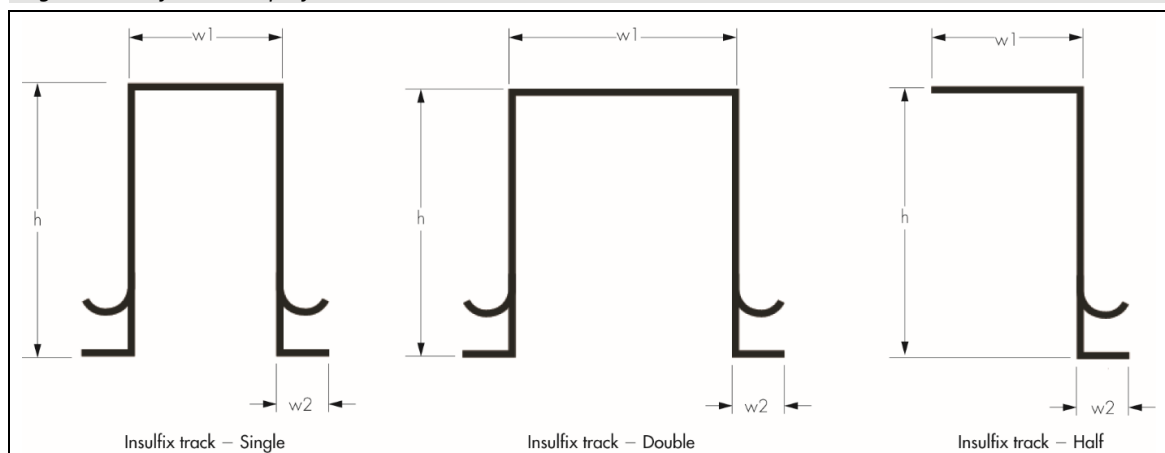
1 Description

1.1 The Insulfix Track is a profiled extruded uPVC track, available in three different profiles (Single, Double and Half) to suit the application. The product comprises a 1 mm thick white/cream coloured profiled uPVC extrusion, which has a pattern punched out at regular intervals along the top flange. The nominal characteristics of the product are given in Table 1 (see also Figure 1 for the different profile types).

Table 1 Insulfix Track – product range and nominal characteristics (see Figure 1)

Track type (product code)	Extrusion thickness (mm)	Length (mm)	Height 'h' (mm)	Width 'w1' (mm)	Lip width 'w2' (mm)	Material and colour
Insulfix Track – Single (R130S)	1	2400	130	51	23	uPVC white
Insulfix Track – Double (R130D)				97		
Insulfix Track – Half (R130H)				49		

Figure 1 Insulfix Track – profile cross sections



1.2 Ancillary items used with this product, which are outside the scope of this Certificate, include:

- Fixings – annular ring shank plasterboard nails (minimum 30 mm long and 3 mm diameter)

- Fixings – coarse thread screws (minimum 35 mm long and 3.5 mm diameter)
- Rigid foil-faced polyisocyanurate (PIR) insulation boards
- Proprietary aluminium jointing tape (moisture resistant)
- Timber rafters
- Vapour permeable (Type LR – low resistance) roof tile underlay
- Non-breathable high resistance (Type HR – high resistance) roof tile underlay
- Roof finish – tiling and slating on timber battens
- Vapour control layer (VCL) – where required
- Gypsum plasterboard lining – where required.

2 Manufacture

2.1 The product is manufactured from a mixture of 50% new and 50% recycled rigid uPVC pellets by conventional extrusion techniques. The pattern in the top is either punched out in line or cut out at a later stage in the process. The product is printed with a batch code, product number and patent number.

2.2 As part of the assessment and ongoing surveillance of product quality, the BBA has:

- agreed with the manufacturer the quality control procedures and product testing to be undertaken
- assessed and agreed the quality control operated over batches of incoming materials
- monitored the production process and verified that it is in accordance with the documented process
- evaluated the process for management of nonconformities
- checked that equipment has been properly tested and calibrated
- undertaken to carry out the above measures on a regular basis through a surveillance process, to verify that the specifications and quality control operated by the manufacturer are being maintained.

3 Delivery and site handling

3.1 The product packaging will depend on the quantity ordered, with larger orders being delivered on shrink-wrapped pallets. Smaller quantities will be delivered in bundles wrapped in polythene sleeves. Deliveries will bear labels incorporating the name of the Certificate holder, product name and BBA logo bearing this Certificate number.

3.2 The product should be stored in clean, dry surroundings out of direct sunlight until ready for use, and protected from mechanical damage.

Assessment and Technical Investigations

The following is a summary of the assessment and technical investigations carried out on the Insulfix Track.

Design Considerations

4 Use

4.1 The Insulfix Track is a profiled extruded uPVC track used to retain rigid foil-faced PIR insulation boards between timber rafters, in tiled or slated pitched roofs of new or existing domestic and non-domestic buildings. The product is available in three different profiles to suit the application as described in section 4.3.

4.2 The use of other insulation types (other than rigid foil-faced PIR insulation boards) is outside the scope of the Certificate.

4.3 The three product profiles (see Figure 1) are intended for use as follows:

- Insulfix Track – Single – to support insulation boards on both sides of single rafters
- Insulfix Track – Double – to support insulation boards on both sides of double rafters
- Insulfix Track – Half – to support insulation boards on one side of rafters at roof abutments and gable ends.

4.4 Roofs should be designed and constructed in accordance with the relevant clauses of BS 5250 : 2021, BS 5534 : 2014 and BS 8212 : 1995, and BS 1995-1-1 : 2004 and its UK National Annex.

4.5 Plasterboard lining/ceilings should be installed in accordance with BS 8212 : 1995 and BS 9250 : 2007.

4.6 The product is suitable for use with 130 mm rafters and above (typically 150 mm rafters, dependent upon breather membrane type and ventilation). The product may be installed on top of (or to the underside of) the rafters at the construction stage in new buildings, or to the underside of the rafters during refurbishment work of existing buildings, where a tiled or slated roof covering is already in place.

4.7 The profile of the product is designed to fit snugly over the top (or the underside) of sloping timber rafters, and it is fixed through the flat uPVC sides of the profile into the sloping timber rafter using either nails or screws. See the *Installation* sections 11 and 12 for further information and spacing of fixings. Rigid PIR insulation boards are pushed onto the product tight against the bottom lip and are locked into position by an additional flexible fin. See Figures 2 and 3.

Figure 2 Insulfix Track installed onto top of rafter

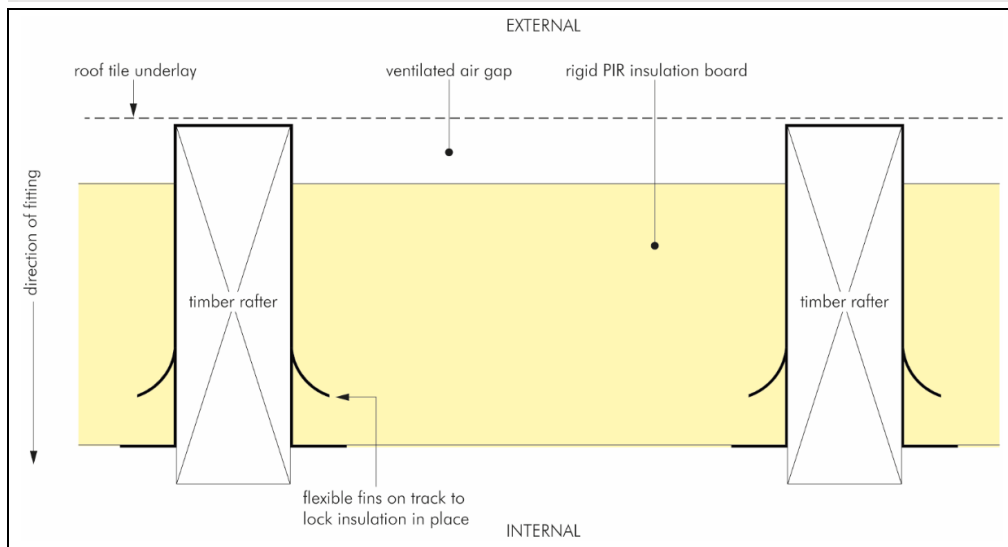
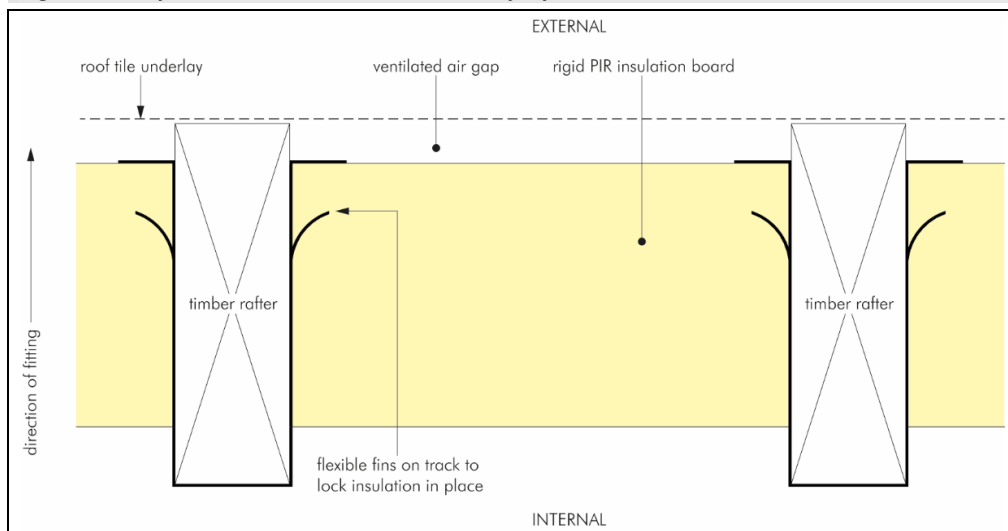


Figure 3 Insulfix Track installed onto underside of rafter



4.8 It is essential that detailing and jointing of the insulation boards achieves a convection-free envelope of high vapour resistance. Any gaps should be filled and/or taped (see sections 12.7 and 12.12). Ridges, abutments and penetrations should also be sealed. Flue pipes passing through the insulation should be suitably sleeved.

4.9 The roof should be designed in accordance with BS 5250 : 2021 (see section 6.2)

4.10 Vapour permeable (LR – low resistance) roof tile underlays used in conjunction with the product must have a current BBA Certificate and must be used in accordance with, and within the limitations of, that Certificate.

5 Practicability of installation

The product is designed to be installed by a competent general builder, or a contractor, experienced with this type of product.

6 Condensation

Interstitial condensation



6.1 The product has a repeated pattern punched out at pitched intervals along the top flange of the track. This will help to reduce this risk of moisture accumulating within the timber rafters.

6.2 The roof should be designed and constructed in accordance with the relevant recommendations of BS 5250 : 2021 taking into account the requirement for an AVCL at ceiling lining, the vapour permeability of the roof tile underlay (RTU), cavities above and below the RTU, and ventilation thereof, and the air permeability of the roof outer covering.

Surface condensation

6.3 Roofs will adequately limit the risk of surface condensation when the thermal transmittance (U value) does not exceed $0.35 \text{ W}\cdot\text{m}^{-2}\cdot\text{K}^{-1}$ at any point and the junctions with walls are designed in accordance with the guidance found in the documents supporting the national Building Regulations.

6.4 In Scotland, roofs will adequately limit the risk of surface condensation when the thermal transmittance (U value) does not exceed $1.2 \text{ W}\cdot\text{m}^{-2}\cdot\text{K}^{-1}$ at any point. Guidance may be obtained from BS 5250 : 2021. Further guidance may be obtained from BRE Report BR 262 : 2002 and the documents supporting the national Building Regulations.

7 Behaviour in relation to fire



7.1 The Certificate holder has not declared a reaction to fire classification to BS EN 13501-1 : 2018.



7.2 In England, Wales and Northern Ireland, when used in pitches of greater than 70° , the product should not be used on buildings that have a storey at least 18 m above ground level.



7.3 In Scotland, when used in pitches of greater than 70° , the product should not be used 1 m or less from a boundary or on domestic buildings with a storey more than 11 m above the ground.

8 Maintenance

The product does not require any maintenance.

9 Durability



Under normal service conditions, the product will remain effective for the life of the roof in which it is incorporated.

10 Reuse and recyclability

The product is made of 50% recycled uPVC and can itself be fully recycled at the end of use.

Installation

11 General

11.1 Installation of the Insulfix Track must be in accordance with the Certificate holder's instructions and this Certificate. Installation can be carried out in all conditions normal to pitched roof construction. The product may be installed at the construction stage in new buildings, and also during refurbishment work of existing buildings.

11.2 The product is intended for use to support/retain rigid foil-faced PIR insulation boards in between the timber rafters of tiled or slated pitched roofs (see sections 4.1 and 4.2).

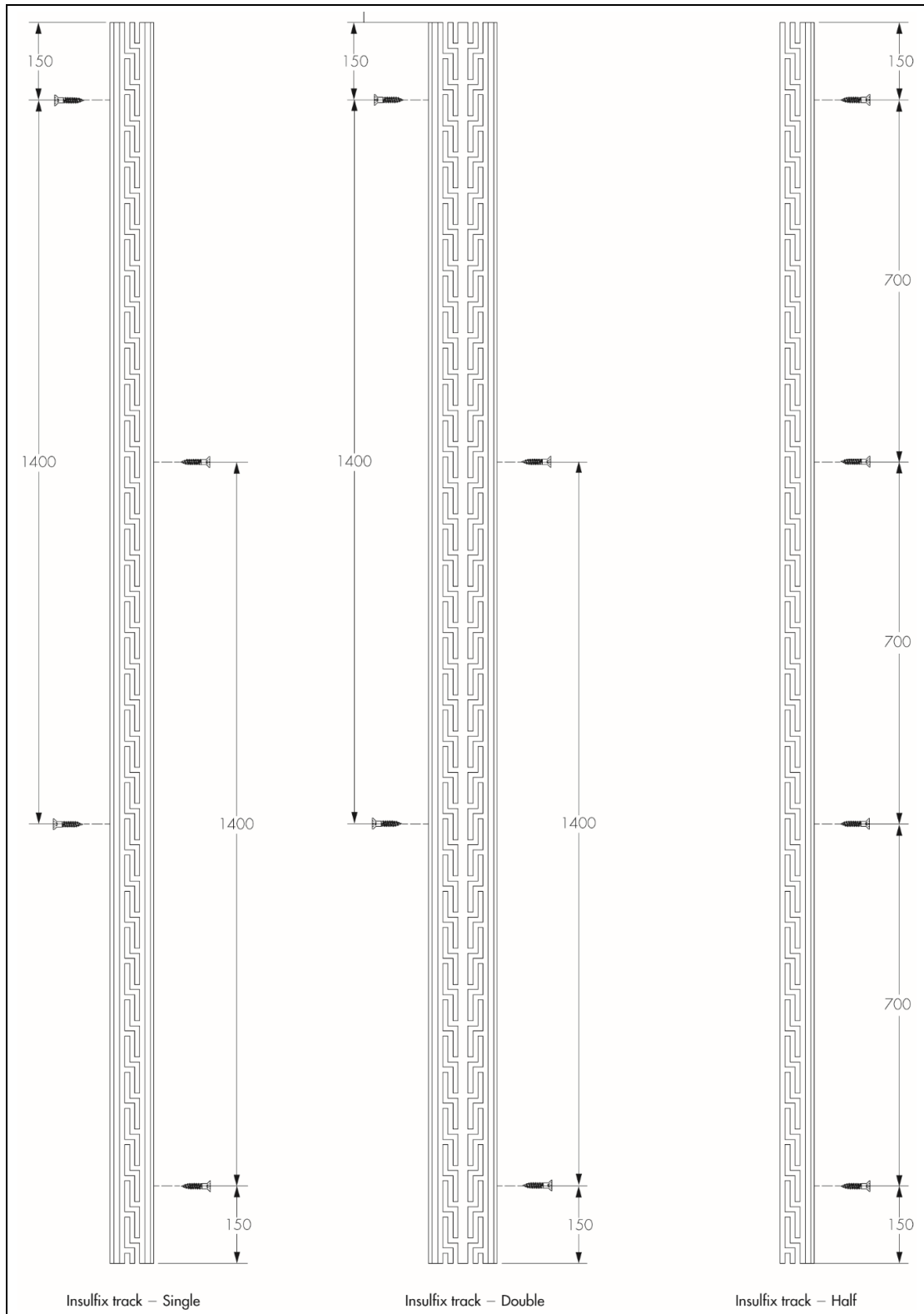
11.3 The product may be installed on the top (or to the underside) of the rafters in new-build construction, or alternatively on the underside of the rafters for existing construction where a tiled or slated roof covering is already in place.

11.4 The product is light to handle and is designed to retain and support the weight of the insulation board only. Since the product will not support the weight of operatives or any other loading, appropriate care must be taken during installation, and finishing of roofs.

11.5 The product is supplied in 2.4 m lengths; however where shorter lengths are required, it can be cut with tin snips.

11.6 The product is designed to fit snugly onto the sloping timber rafters, and is fixed through the unpunched sides of the track into the side of the rafter using nail or screw fixings (see section 1.2). The recommended fixing positions for each track type are shown in Figure 4.

Figure 4 Insulfix Track – required spacing of fixings through the sides (top view shown)



12 Procedure

Track installed onto top of timber rafters

12.1 The Insulfix Track is placed over the top of the rafter and fixed through both its vertical sides into the sides of the timber rafter using appropriate screws or nails (see section 11.6). Where one piece of Insulfix Track meets another, the ends are butted together leaving no exposed rafter.

12.2 The clear space between the Insulfix Tracks should be measured at the top, middle and bottom positions along the length of insulation board to be fitted. This is to ensure that any rafter spacing deviation is considered.

12.3 The insulation board should be accurately cut to these measurements, with square edges, to achieve a tight fit.

12.4 The cut insulation board is then pushed into the Insulfix Track until it is locked into place.

12.5 When cutting and fitting further insulation boards using the same method, they are to be tightly butted together by sliding the new board up to meet the one that has already been fitted.

12.6 The Insulfix Track allows smaller offcut sections of insulation to be utilised, fitting securely by cutting to size along their length and tightly butting them together.

12.7 When the track is installed on top of the rafters, the insulation board joints should not be taped on the outside (cold side of the insulation).

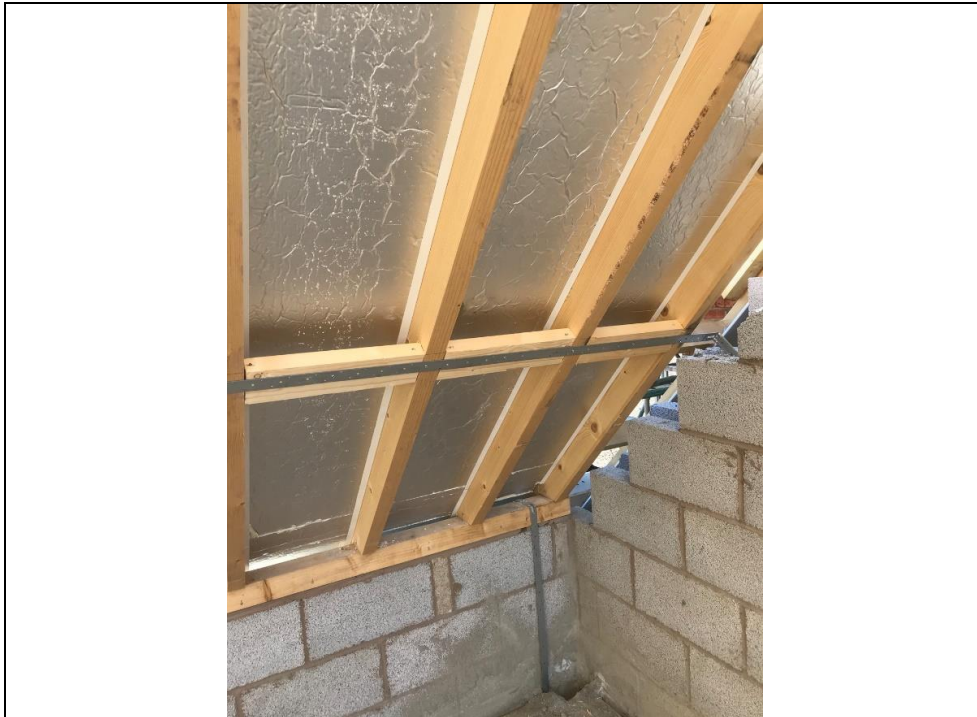
12.8 With the insulation boards held firmly in place, subsequent fitting of roofing battens and underlay membrane can take place, with standard nail fixings penetrating the timber rafters through the top of the Insulfix Track. Roof tiles or slates are installed in accordance with the relevant clauses of BS 5534 : 2014.

12.9 See Figures 2, 5 and 6 for views of the Insulfix Track installed on top of the rafters.

Figure 5 Insulfix Track – installation onto top of rafters (new build - external view)



Figure 6 Insulfix Track – installation onto top of rafters (new build - internal view)



Track installed onto underside of timber rafters

12.10 The Insulfix Track is pushed up over the underside of the timber rafter and fixed through both its vertical sides into the sides of the rafter using appropriate screws or nails (see section 11.6). Where one piece of Insulfix Track meets another, the ends are butted together leaving no exposed rafter.

12.11 The same procedure stated in sections 12.2 to 12.6 should then be followed. The clear space between the Insulfix Tracks should be measured at the top, middle and bottom positions along the length of insulation board to be fitted. This is to ensure that any rafter spacing deviation is considered.

12.12 The joints between the insulation boards should be taped on the underside (warm side of the insulation) with proprietary aluminium moisture-resistant jointing tape. The sides of the insulation boards must not be taped down against the rafters.

12.13 With the insulation boards held firmly in place, subsequent fitting of a secondary layer of insulation and/or plasterboard lining can take place, with fixings penetrating the top of the timber rafters through the Insulfix Track. The plasterboard lining / ceiling should be installed in accordance with BS 8212 : 1995 and BS 9250 : 2007.

12.14 See Figures 3, 7 and 8 for views of the Insulfix Track installed on the underside of the timber rafters.

Figure 7 Insulfix Track – installation onto underside of rafters (new build or existing refurb - internal view)

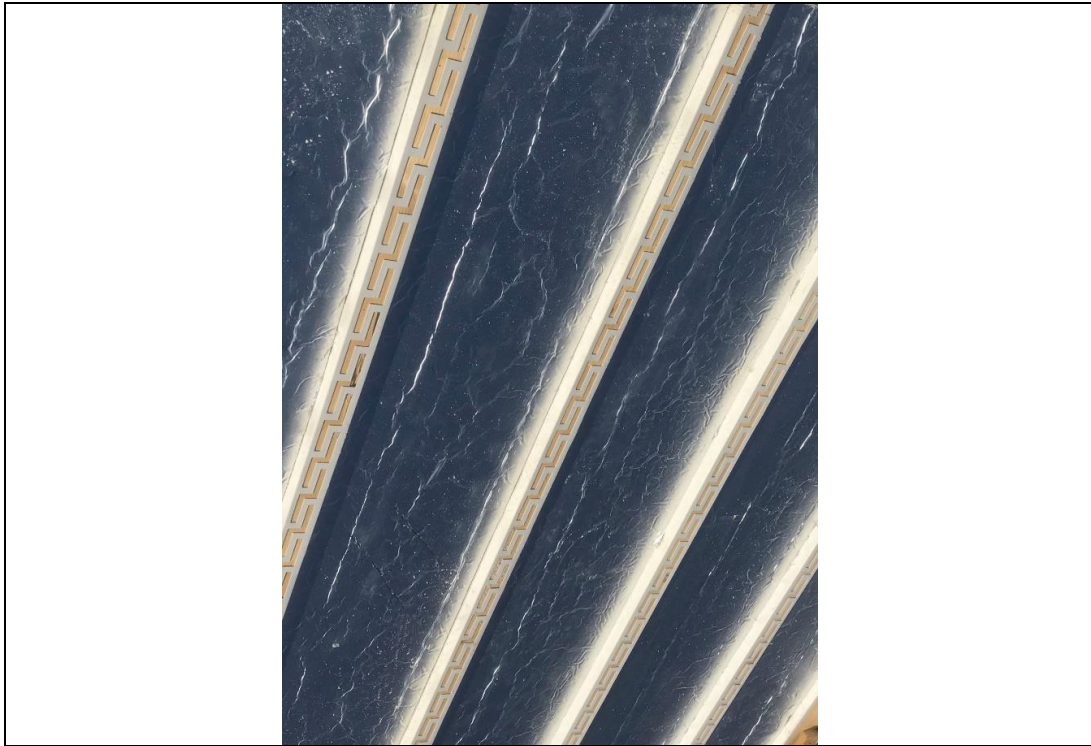


Figure 8 Insulfix Track – installation onto underside of rafters (new build - external view)



13 Tests

Tests were carried out and the results assessed to determine:

- dimensional stability
- resistance to impact (falling mass)
- resistance to shatter by nail penetration
- heat ageing (quality of extrusion)
- compatibility between the uPVC and the PIR insulation foam and facings.

14 Investigations

14.1 The manufacturing process was evaluated, including the methods adopted for quality control, and details were obtained of the quality and composition of the materials used.

14.2 An assessment was made of the practicability of installation.

Bibliography

BRE Report BR 262 : 2002 *Thermal insulation: avoiding risks*

BS 5250 : 2021 *Management of moisture in buildings – Code of practice*

BS 5534 : 2014 + A2 : 2018 *Slating and tiling for pitched roofs and vertical cladding – Code of practice*

BS 8212 : 1995 *Code of practice for dry lining and partitioning using gypsum plasterboard*

BS 9250 : 2007 *Code of practice for the design of the airtightness of ceilings in pitched roofs*

BS 1995-1-1 : 2004 + A2 : 2014 *Eurocode 5 : Design of timber structures – General – Common rules and rules for buildings*

NA to BS 1995-1-1 : 2004 + A2 : 2014 *UK National Annex to Eurocode 5 : Design of timber structures – General – Common rules and rules for buildings*

BS EN 13501-1 : 2018 *Fire classification of construction products and building elements — Classification using test data from reaction to fire tests*

BS EN 15026 : 2007 *Hygrothermal performance of building components and building elements – Assessment of moisture transfer by numerical simulation*

Conditions of Certificate

Conditions

1. This Certificate:

- relates only to the product that is named and described on the front page
- is issued only to the company, firm, organisation or person named on the front page – no other company, firm, organisation or person may hold or claim that this Certificate has been issued to them
- is valid only within the UK
- has to be read, considered and used as a whole document – it may be misleading and will be incomplete to be selective
- is copyright of the BBA
- is subject to English Law.

2. Publications, documents, specifications, legislation, regulations, standards and the like referenced in this Certificate are those that were current and/or deemed relevant by the BBA at the date of issue or reissue of this Certificate.

3 This Certificate will be displayed on the BBA website, and the Certificate Holder is entitled to use the Certificate and Certificate logo, provided that the product and its manufacture and/or fabrication, including all related and relevant parts and processes thereof:

- are maintained at or above the levels which have been assessed and found to be satisfactory by the BBA
- continue to be checked as and when deemed appropriate by the BBA under arrangements that it will determine
- are reviewed by the BBA as and when it considers appropriate.

4. The BBA has used due skill, care and diligence in preparing this Certificate, but no warranty is provided.

5. In issuing this Certificate the BBA is not responsible and is excluded from any liability to any company, firm, organisation or person, for any matters arising directly or indirectly from:

- the presence or absence of any patent, intellectual property or similar rights subsisting in the product or any other product
- the right of the Certificate holder to manufacture, supply, install, maintain or market the product
- actual installations of the product, including their nature, design, methods, performance, workmanship and maintenance
- any works and constructions in which the product is installed, including their nature, design, methods, performance, workmanship and maintenance
- any loss or damage, including personal injury, howsoever caused by the product, including its manufacture, supply, installation, use, maintenance and removal
- any claims by the manufacturer relating to UKCA, UKNI or CE marking.

6. Any information relating to the manufacture, supply, installation, use, maintenance and removal of this product which is contained or referred to in this Certificate is the minimum required to be met when the product is manufactured, supplied, installed, used, maintained and removed. It does not purport in any way to restate the requirements of the Health and Safety at Work etc. Act 1974, or of any other statutory, common law or other duty which may exist at the date of issue or reissue of this Certificate; nor is conformity with such information to be taken as satisfying the requirements of the 1974 Act or of any statutory, common law or other duty of care.