

ACCESSORIES

CAVITY
CLOSER

Cavity Closer

SAFE-R CLOSE-R

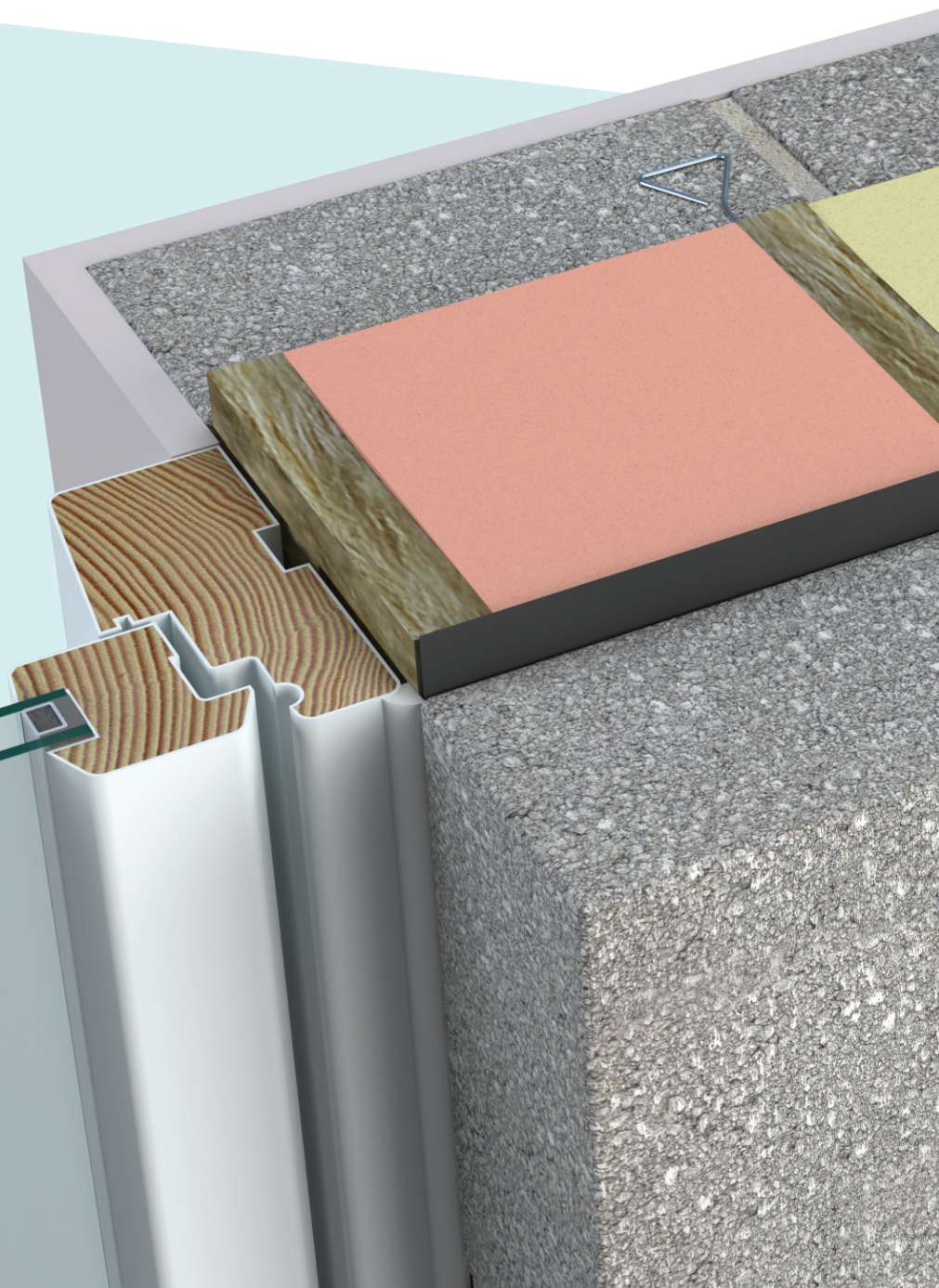
Achieved in excess of 4 hour fire rating in a 150mm cavity when tested to EN1366-4

Provides template for wall ties placement

Ensures continuity of insulation

Suitable for door, window, eaves openings

Suitable for use at expansion joints



ACCESSORIES CAVITY CLOSER

Cavity Closer

SAFE-R CLOSE-R

Structural failures in cavity walls are largely due to the incorrect placement of wall ties within the cavity. Openings at windows and doors require additional wall ties to be placed at a maximum 225mm into the cavity at every course of block. It is also a requirement under TGD Part A that additional wall ties must be placed at gable end openings and either side of expansion joints.

These extra structural ties do interrupt the continuity of the insulation layer and increase Thermal Bridging issues at very vulnerable areas, with mould growth normally most evident at reveals.

Safe-R Close-R achieves an excellent fire rating and allows for the correct placement of wall ties to meet TGD Part A structural requirements. The superior insulation performance attains Passive & NZEB standards for Thermal Bridging.

Benefits

- Achieved in excess of 4 hour fire rating in a 150mm cavity when tested to EN1366-4
- Provides template for wall ties placement
- Ensures continuity of insulation
- Suitable for Doors, Windows, Eaves and Openings
- Suitable for use at expansion joints

1. Fire & Thermal

The combination of StoneWool with Safe-R Phenolic meets the highest thermal and fire targets.

2. Allow for DPC

The placement of traditional DPCs at openings allows for protection of the framing junction. Windows/door tolerances necessitate the use of sealants which is hidden by the DPC.

3. 5mm Compression fit

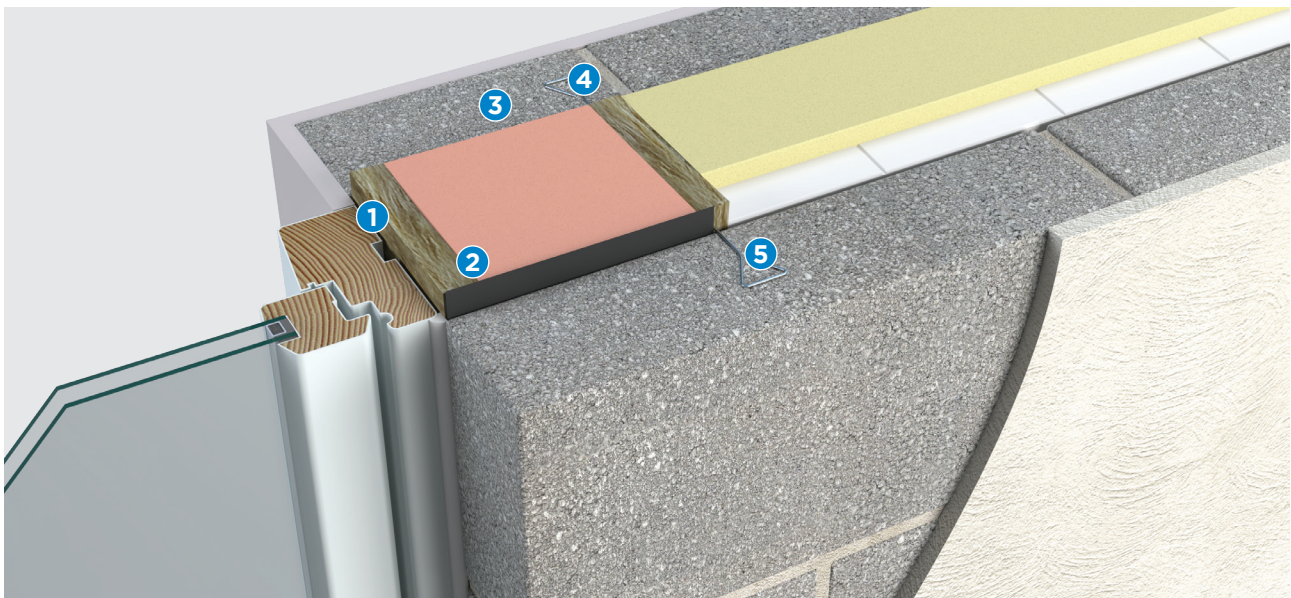
Oversized StoneWool ensures tight fit within cavity opening.

4. 25mm StoneWool

StoneWool acts as a compressive layer to embed wall ties and allow seamless fit with chosen wall insulation

5. 225mm Template

The Safe-R Close-R acts as a template for the correct placement of ties at every block course ensuring compliance with TGD Part A.



SAFE-R CLOSE-R

Safe-R Close-R Properties

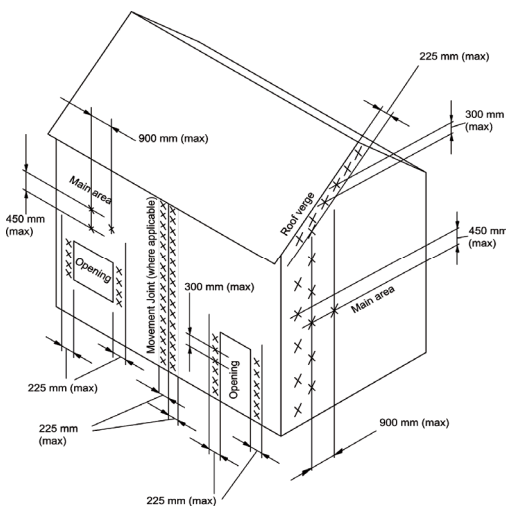
Product Code	Description	Width (Compression)	Length	Depth
XTCLSR1200100	Safe-R Close-R 100mm	105mm	1200	200
XTCLSR1200125	Safe-R Close-R 125mm	130mm	1200	200
XTCLSR1200150	Safe-R Close-R 150mm	155mm	1200	200

Safe-R Close-R is available with a PVC weatherproof casing that is keyed to accept a plaster finish.

Product Code	Description	Width (Compression)	Length	Depth
XTCLSR1200175R	Safe-R Close-R 75mm Return	80mm	1200	200

TGD A - Requirements for additional wall ties at openings and movement joints.

Wall ties should be provided in cavity walls and should comply with I.S. EN 845-1. **Extra wall ties are required at the jambs of openings and movement joints as shown in the diagram below.**



Wall tie failure at gables



Safe-R Close-R at parallel reveal

Fire tested latest EN standards

Test terminated at:
4 Hours 2 Minutes

Test carried out to
EN 1366-4 standard

Conducted by
Efectis (NI)

Safe-R is a superior performance Phenolic insulation with an enhanced fire classification. The combination of StoneWool with Safe-R Phenolic was tested to EN1363-1 and EN1364-1. The high thermal performance provides certified PSI values reaching Passive Thermal Bridging standards.

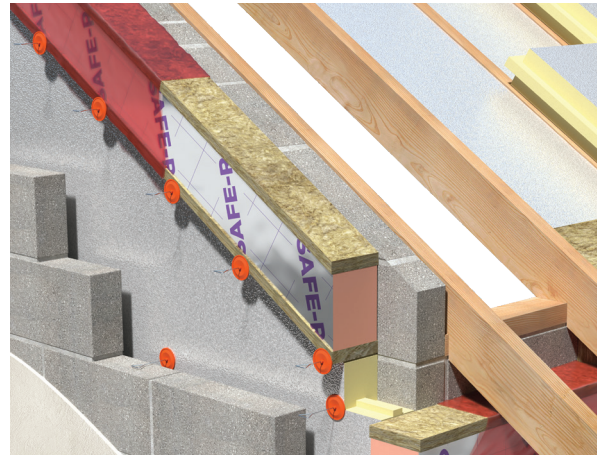
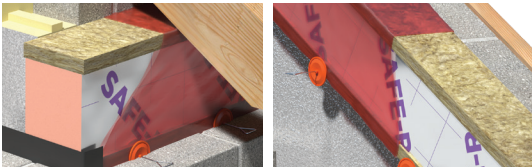


WALL PLATE EAVES & MOVEMENT JOINTS

SAFE-R CLOSE-R

Closing cavities at wall plate eaves

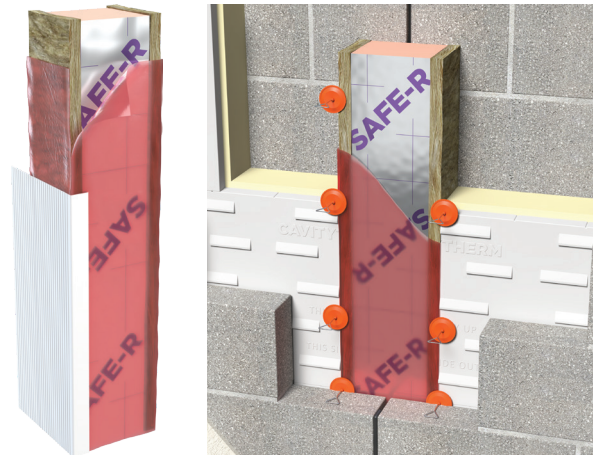
Cavities should be closed both to provide an effective seal restricting the possibility of fire with the advantage of restricting heat loss through convection within the cavity. Safe-R Close-R provides compliance with thermal, fire and structural requirements.



Providing stability at movement joints

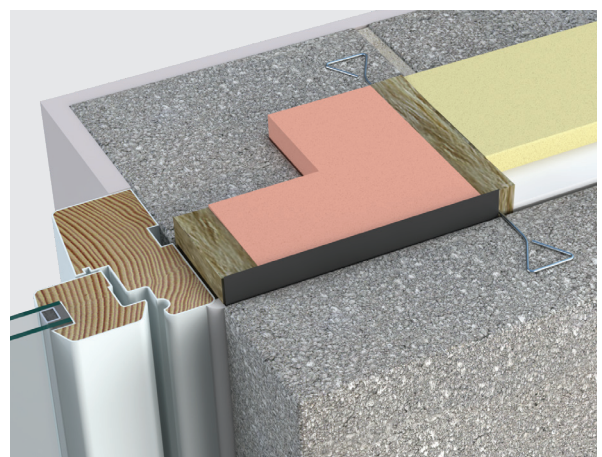
Unilin Safe-R Close-R allows wall ties to be placed correctly at either side of movement joints in a wall.

Safe-R Close-R is available with a PVC weatherproof casing that is keyed to accept a plaster finish.



Safe-R Close-R at returned block

The traditional returned block offers a robust alternative to allow fixing of frames directly to the concrete block.



THERMAL BRIDGING

SAFE-R CLOSE-R

Heat loss through Thermal Bridging in a well-insulated dwelling can account for up to 30% of the total heat loss.

Ineffective detailing in a well-insulated building leads to localised cold spots, condensation and mould growth.

The effective reduction of Thermal Bridging at junctions in buildings is a key step in achieving NZEB and Passive performance in buildings.

The reveal junctions, in addition to gable and eaves junctions, combine to be the largest thermal bridge within a building and are therefore one of the most critical.

Mould growth is most evident at window reveals and ceiling junctions, and they must be properly detailed.

TGD L, Eurocode 6/SR325 emphasises that the designer should identify thermal bridges and states 'Detailed three-dimensional drawings should be made of all junctions, steps, angles and stop ends, to enable fabrication either on or off site.'

Detail Safe-R Close-R	Default PSi Value	Width (Compression)	f-Factor
125mm Cavity Wall Jamb	0.006	0.004	0.96
150mm Cavity Wall Jamb	0.006	0.005	0.97
Party Wall	0.032	Psi from 0.037 (0.019)*	0.98
Eaves	0.053	0.051	0.94

*Value applied to each dwelling

CPD and Guidance available from Unilin

Accredited Thermal Bridging Certificates and Thermal Bridging Guides are available from Unilin Technical Support.

Unilin have CPD presentations available on the subject of Cavity Closing and Detailing of Openings, Thermal Bridging and Calculations. These include:

- Effective closing of openings: Reveal openings, structural, fire, thermal requirements.
- Passive Foundations: Detailing at wall floor junctions to reduce Thermal Bridging. (Inc Threshold Design)
- Fabric Performance for NZEB.

Contact our Technical Team for information.

HANDLING, CUTTING & STORAGE

Unilin insulation should be stored off the ground, on a clean, flat surface and must be stored under cover. The polythene wrapping is not considered adequate protection for outside exposure. Care should be taken to protect the insulation in storage and during the build process.


The insulation boards can be readily cut using a sharp knife or fine toothed saw. Ensure tight fitting of the insulation boards to achieve continuity of insulation as asked for within the ACDs. Appropriate PPE should be worn when handling insulation. Please refer to Health & Safety data sheets on our website.

The boards are wrapped in polythene packs and each pack is labelled with details of grade/type, size and number of pieces per pack.

Durability

Unilin Insulation products are stable, rot proof, provide no food value to vermin and will remain effective for the lifetime of the building, dependent on specification and installation. Care should be taken to avoid contact with acids, petrol, alkalis and mineral oil. When contact is made, clean materials in a safe manner before installation.





Expect more Knowledge

Unilin Insulation, formerly Xtratherm, is one of Ireland's largest manufacturers and suppliers of insulation. We have a 30 plus year history of working in partnership with construction professionals to close the gap between design and as-built performance.

Higher standards of fabric performance call for greater adherence to best practice detailing. To achieve this and to 'close the gap' between design and build, we provide a dedicated Technical Team, all qualified to the highest standards of competency in U-Value calculation and condensation risk analysis.

Here to support you

- BRE listed Thermal Bridging Detailing
- BRE/NSAI Trained Modelling
- BBA/TIMSA calculation competent
- Warranted Calculations available
- Immediate technical response
- DEAP Qualified
- Insulation systems to deliver real onsite performance

Get in touch

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FREE
One-to-one
advice



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The Sustainable Solution

Specifying Unilin Insulation is a real commitment to minimising energy consumption, harmful CO₂ emissions and their impact on the environment. Using our products is one of the most effective ways to reduce energy consumption – in fact, after just eight months the energy they save far outweighs the energy used in their production. In addition, our manufacturing facilities operate to an ISO 14001 certified Environmental Management System.

Environmental Product Declaration (EPD)

An Environmental Product Declaration or EPD for a construction product indicates a transparent, robust and credible step in the pursuit and achievement of real sustainability in practice, it is a public declaration of the environmental impacts associated with specified life cycle stages of that product. Unilin EPDs have been independently verified in accordance with EN 15804+A2:2019 and ISO 14025 accounting for stages of the LCA from A1 to A3, with options A4-A5 and modules C1-C4 and D included. The process of creating and EPD allows us to improve performance and reduce resource wastage through improvements in product design and manufacturing efficiency. They play a crucial role in manufacturing and construction and are increasingly asked for by industry.

EPDs and BREEAM

BREEAM is primarily trying to encourage designers to take EPDs into consideration when specifying products. BREEAM requires EPDs to be verified by a third-party. For the Mat O2 category, points are awarded based on whether EPDs are generic, manufacturer-specific, or product-specific. Non 3rd party verified EPDs to EN 15804 cannot be accepted. All of Unilin EPDs are externally verified.

Responsible Sourcing

Unilin has BES 6001 certification for responsible sourcing. The second BREEAM credit under that category is based on responsibly-sourced materials – at least 80% of the total insulation used in roofs, walls, ground floors and services must meet any of tier levels 1 to 6 in the BREEAM table of certification schemes. Our Environmental Management System is certified under EN ISO 14001, and our raw materials come from companies with similarly certified EMS (copies of all certificates are available for BREEAM assessments). This level of responsible sourcing meets tier level 6 in the BREEAM table.

Good workmanship and appropriate site procedures are necessary to achieve expected thermal and airtightness performance. Installation should be undertaken by professional tradespersons. The example calculations are indicative only, for specific U-Value calculations contact Unilin Insulation Technical Support. Unilin technical literature, Agrément certifications and Declarations of Performance are available for download on the Unilin Insulation website. The information contained in this publication is, to the best of our knowledge, true and accurate at the time of publication but any recommendations or suggestions which may be made are without guarantee since the conditions of use are beyond our control. Updated resources may be available on our websites. All images and content within this publication remain the property of Unilin Insulation.

