

Safe-R Close-R

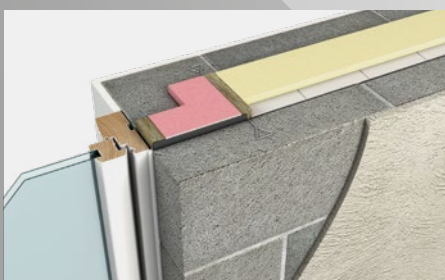
A high performance
EN fire-rated cavity
closer providing
compliance with
structural and thermal
regulations in Ireland.



Wall Reveals

- 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

TESTED TO
**BS EN
1366-4**
Xtratherm®



Xtratherm®
More than insulation

For more information
contact our Technical Team

T. 046 906 6050
xtratherm.ie

Introduction

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 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.

Safe-R Close-R Properties

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

1. Fire & Thermal

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

2. Allow for DPC

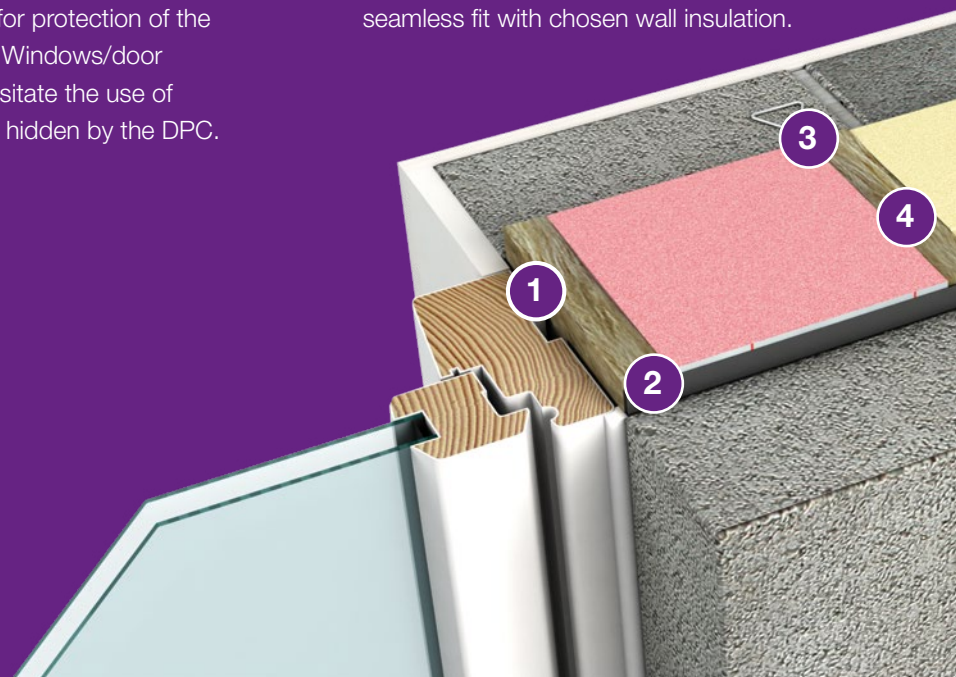
The placement of traditional DPC's at openings allows for protection of the framing junction. Windows/door tolerances necessitate the use of sealants which is hidden by the DPC.

3. 5mm Compression fit

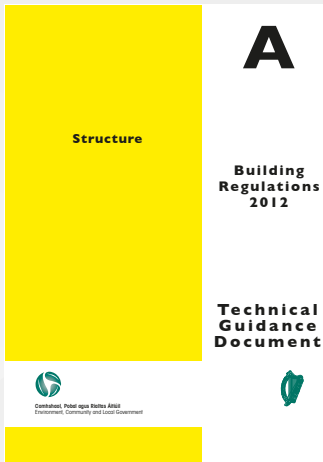
Oversized StoneWool ensures tight fit within cavity opening.

4. 25mm StoneWool

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

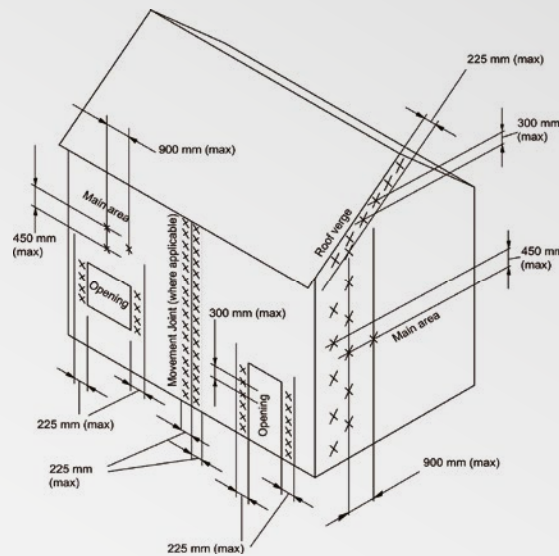


TGD A - Requirements for additional wall ties at openings and movement joints



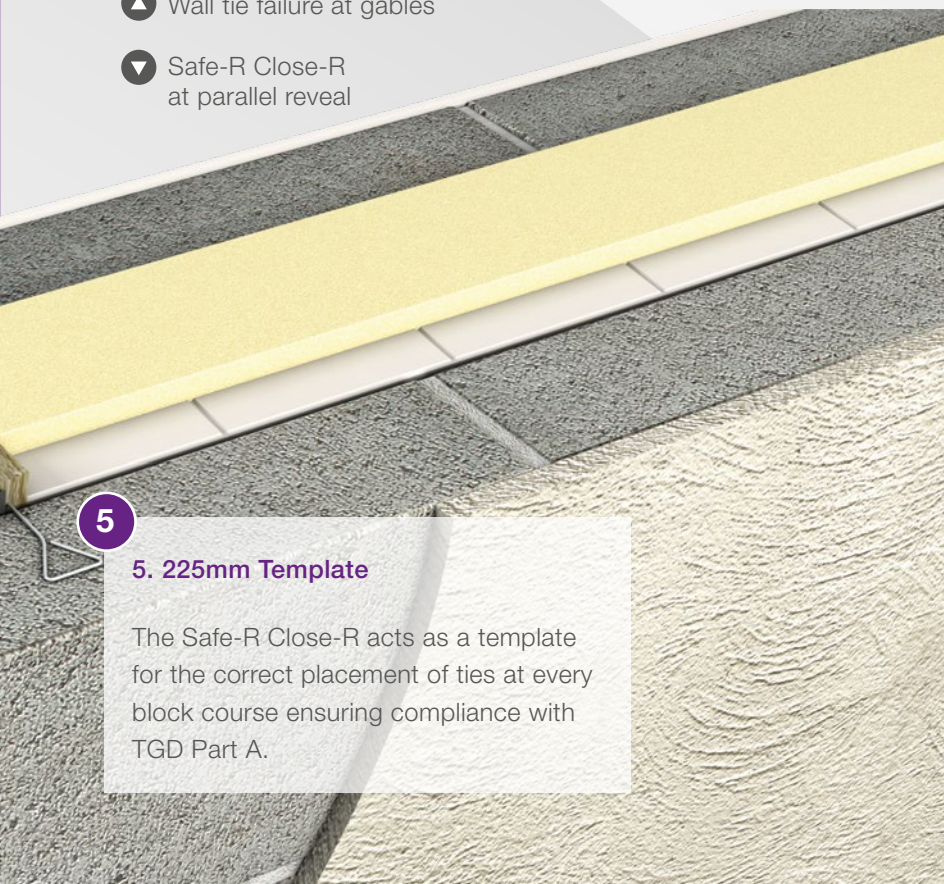
Wall ties should be provided in cavity walls and should comply with I.S. EN 845-1.

Extra wall ties are required at the jambs of openings and movement joints as shown in the diagram opposite.



▲ Wall tie failure at gables

▼ Safe-R Close-R at parallel reveal



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.

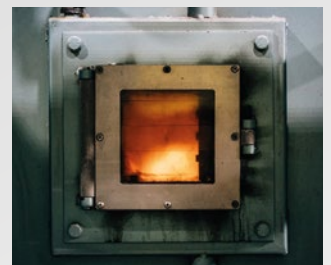
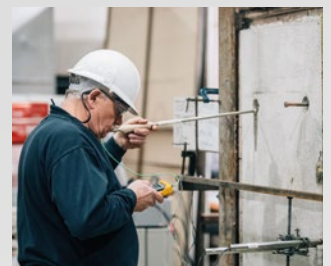
Fire tested latest EN standards.

Test terminated at:
4 Hours 2 Minutes

Test carried out to
EN 1366-4 standard

Conducted by
Efectis (NI)

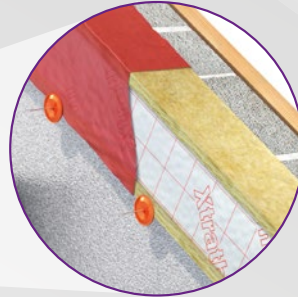
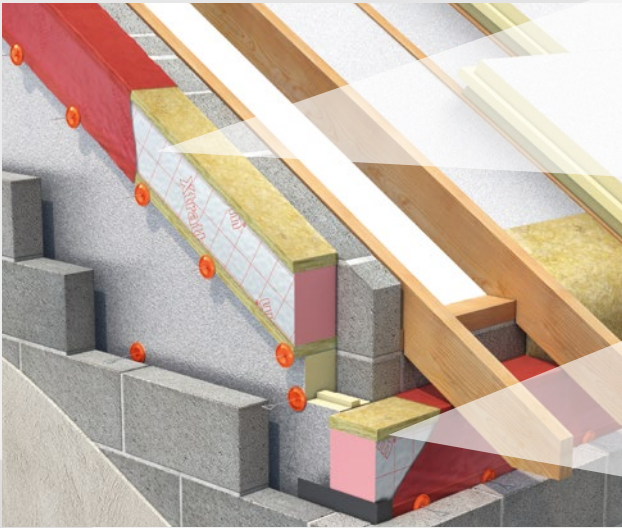
Safe-R is a superior performance Phenolic insulation with an enhanced fire classification. The combination of StoneWool with Safe-R Phenolic was tested to EN1363-1 and EN1364-1. The high thermal performance provides certified PSI values reaching Passive Thermal Bridging standards.



Wall Plate Eaves & Movement Joints

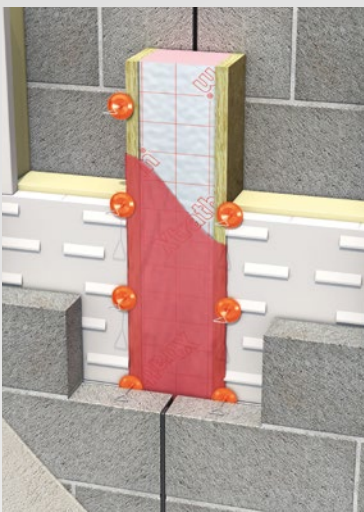
Closing cavities at wall plate eaves

Cavities should be closed both to provide an effective seal restricting the possibility of fire and also 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

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



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.



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

Thermal Bridging

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.'

A clear understanding of the effectiveness of treatments for the wall/floor junction is fundamental to efficient design of low energy buildings.

Detail	Safe-R Close-R	Default PSi Value	Safe-R Close-R PSi Value	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 to 0.019*	0.98
Eaves		0.053	0.051	0.94

* Value applied to each dwelling

CPD and Guidance available from Xtratherm

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

Xtratherm 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.

Xtratherm®

More than insulation

The Sustainable Solution

Specifying Xtratherm 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.

The BRE Green Guide

The 2008 Green Guide to Specification produced by the BRE gives Xtratherm Insulation products a rating of A or A+. Green Guide ratings are used to gain credits in BREEAM (BRE Environmental Assessment Method) for non-residential buildings, and under 'Mat 4 – Insulation' the first credit requires the building to have an Insulation Index of 2 or greater – only achievable if the weighted average rating of the insulation is A or A+. This shows that all our products have been made with materials that have been responsibly sourced. The standard sets out organisational governance, supply chain management and environmental and social aspects that are verified and ensure responsible sourcing of materials.

Responsible Sourcing

Xtratherm 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.

Global Warming and Ozone Depletion

All Xtratherm Insulation products use CFC-and HCFC-free materials, and are manufactured using a blowing agent with a low GWP and zero ODP.

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 Xtratherm Technical Support. Xtratherm technical literature, Agrément certifications and Declarations of Performance are available for download on the Xtratherm 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 Xtratherm.

Xtratherm Limited

Liscarton Industrial Estate
Kells Road, Navan
Co. Meath, Ireland
C15 NP79

T +353 (0)46 906 6000
F +353 (0)46 906 6090

info@xtratherm.ie

xtratherm.ie

Xtratherm UK Limited

Park Road Holmewood
Chesterfield, Derbyshire
United Kingdom
S42 5UY

T + 44 (0) 371 222 1033
F + 44 (0) 371 222 1044

info@xtratherm.com

xtratherm.com

ISO 9001 | Quality Management Systems

ISO 14001 | Environmental Management Systems



Xtratherm, part of UNILIN group.

IREBSR/CA4.2