

Conlit Firestop Systems

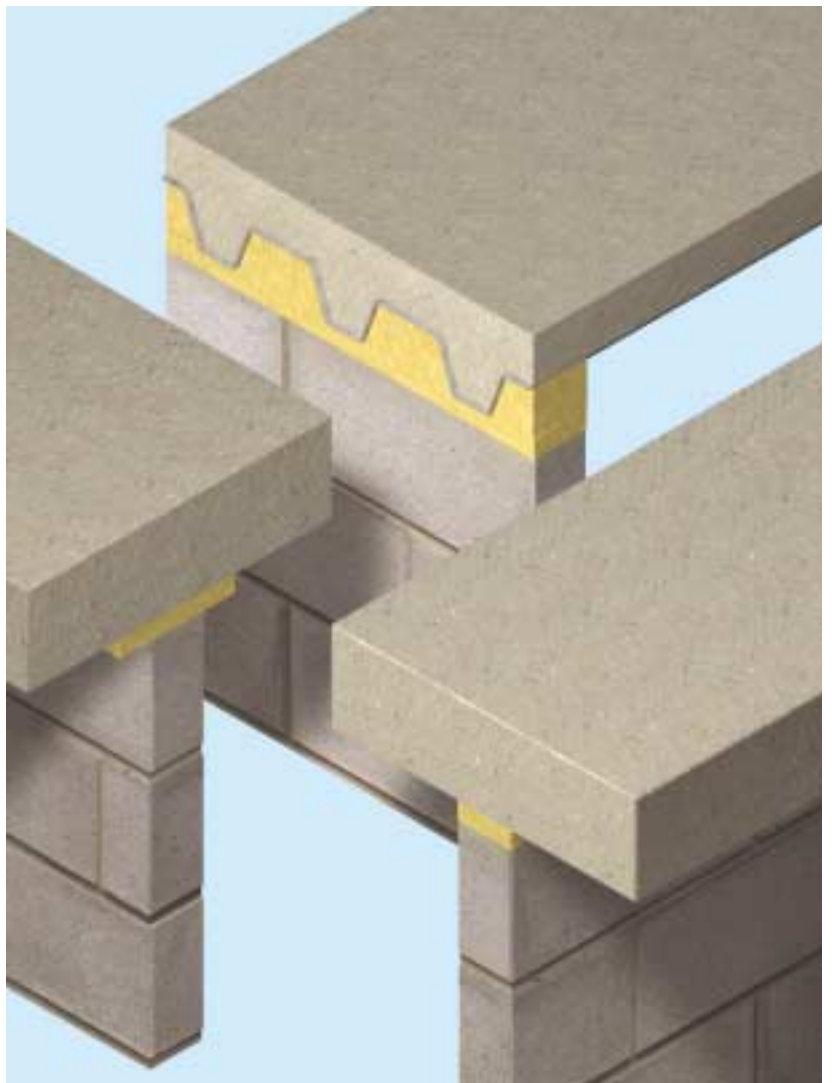
For up to 4 hours firestopping at compartment junctions

Conlit Firestop Systems have been developed to provide up to 4 hours firestopping at the junctions of compartment walls and floors. The systems have been tested in accordance with BS 476: Part 20: 1987 (LPC-CC 82633, 10th July 1992).

Solutions are illustrated for all walls from 400 kg/m³ density and include insulation criteria for concrete decks, composite decks and simple profiled sheeting.

Advantages

- Up to 4 hours fire stopping to meet integrity and insulation criteria
- Suitable for all walls from 400 kg/m³
- Meets the two hour minimum compartmentation required by Insurers Code of Practice for Construction of Buildings (1992)
- Excellent acoustic properties
- CFC, HCFC and HFC free
- Maintenance free



Standards and approvals

Rockwool Conlit Firestop Systems comply with the requirements of BS EN 13162: 2001 Thermal insulation products for buildings Factory made mineral wool (MW) products specification.

Conlit Firestop materials have been tested to BS 476: Part 20: 1987 and assessed by The Loss Prevention Council, Borehamwood.

The test data applies to all gaps over walls of concrete, clay bricks or blocks with a density greater than 400 kg/m³.

Rockwool is a generically approved firestopping material and all materials conform to BS 3958: Part 5: 1986, 'Specification for bonded man made mineral fibre slabs'.

Description

Composition and manufacture

Rockwool is manufactured from a melt of volcanic rock and limestone. The molten rock is spun into wool and resin impregnated.

Conlit Firestop materials are made from moisture resistant rock wool, allowing adequate compression yet retaining the necessary lateral stiffness for ease of installation. Type 2 systems are semi-flexible whilst Type 3 are more rigid.

Dimensions

All Firestop products are supplied in standard lengths of 900 mm.

Conlit Firestop 2

Rectangular strips, (min. 5% compression)

Thicknesses: 12.5, 20, 30, 40, 50, 60,
70, 80, 90, 100 mm

Widths: 100, 150, 200 mm

Fire resistance: 2, 3, 4 hours respectively

Conlit Firestop 3A

Rectangular strips, (tight fit required)

Thicknesses: 10, 15, 20, 25, 30, 35,
40, 45, 50, 60, 70, 80 mm

Widths: 200, 300, 400 mm

Conlit Firestop 3B

Trapezoidal strips, (tight fit required)

Available for all profiled decks. Deck profile to be named at time of order, e.g. Ribdeck 60, Alphalok etc.

Conlit Firestop Dovetail Infill Strips

Supplied as narrow rectangular strips for pinched installation into nominated deck profiles, dovetail in shape; e.g. Holorib, Quickspan, Q51 etc.

Note Dovetail Infill Strips must be installed with vertical laminations.

Performance

Chemical

Rockwool mineral wool has a basaltic composition in which the refractory oxide components have been enhanced for stability at high temperatures.

Rockwool is chemically inert. An aqueous extract of the wool is neutral (pH7) or slightly alkaline.

Biological

Conlit Firestop Systems are completely rot proof, do not offer sustenance to vermin and do not encourage the growth of fungi, moulds and bacteria.

Compatibility

Rockwool materials are compatible with all normal building and constructional materials with which they are likely to come into contact.

Durability

Rockwool materials will perform effectively throughout the lifetime of the building with a minimum of maintenance unless disturbed.

Environment

No CFCs, HCFCs or HFC's are used in the manufacture of Rockwool materials.

Design and Installation

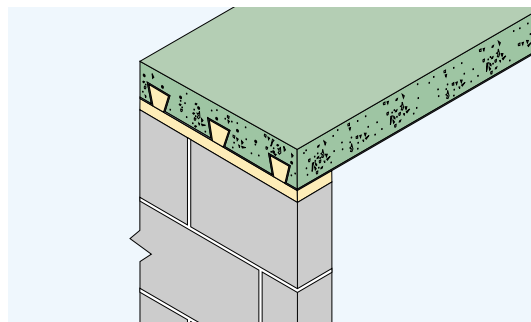
The following installation requirements must be met in order to reliably achieve the stated fire resistances.

- i Conlit Firestop 2 must be fitted as rectangular pieces, accurately butt jointed and compressed by at least 5% in thickness.
- ii Conlit Firestop 3 must be fitted to give a tight and accurate fit, closely following the profile of the gap.
- iii 1 or 2 layers may be used. Single layer firestopping will always be preferred, with double layer methods limited to those occasions where building tolerances demand practicality. 2 layers should be installed simultaneously. The height of void should not exceed the width of the Firestop.
- iv Gaps associated with perimeter slab/wall firestopping should be firestopped using Rockwool SP Firestop data sheet.
- v Vertical expansion gaps may be firestopped with Conlit Firestop materials provided the compression levels are observed with due regard to building movement.
- vi Installers may find simple smooth 'slip-plates' of benefit when installing Conlit Firestop materials across rough surfaces.
- vii See Fig. 6 for mechanical fixing to asymmetrical profiles across compartment walls.

Sealing

Small holes may be filled with intumescent mastic if necessary.

Evode Idenden ET150 is a suitable surface coating to exposed edges where sealing is desired to meet requirements of Insurers Design Guide



Pinched dovetail infill strips over firestop 2 or 3A blocks

Applications and fire resistances

All fire ratings apply to gaps over walls constructed of dense aggregate blocks, lightweight aggregate concrete, clay bricks, or concrete blocks, which have a density of 400 kg/m³ or more.

Fire resistance periods

Fire resistance includes integrity and insulation criteria to BS 476: Part 20: 1987

Figure 1

Wall/Firestop width (mm)	Fire resistance (hrs)
100	2
150	3
200	4

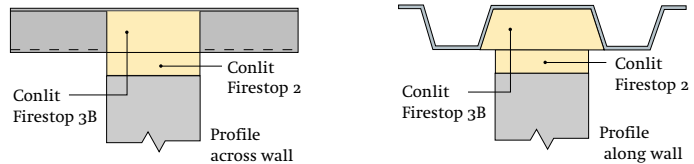


Figure 1 Profiled metal deck over blockwork wall

Figure 2

Wall/Firestop width (mm)	Fire resistance (hrs)	
100	a) 2	b) 2
150	3	4
200	4	4

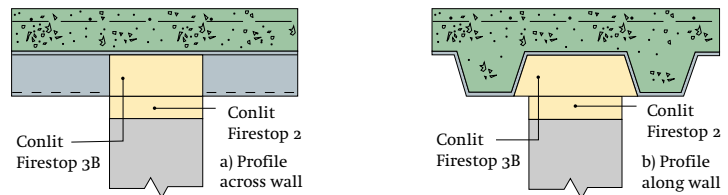


Figure 2 Profiled metal deck under lightweight concrete cover

Figure 3

The fire resistance of the Firestop will be the same as that achieved by the fire protection of the beam.

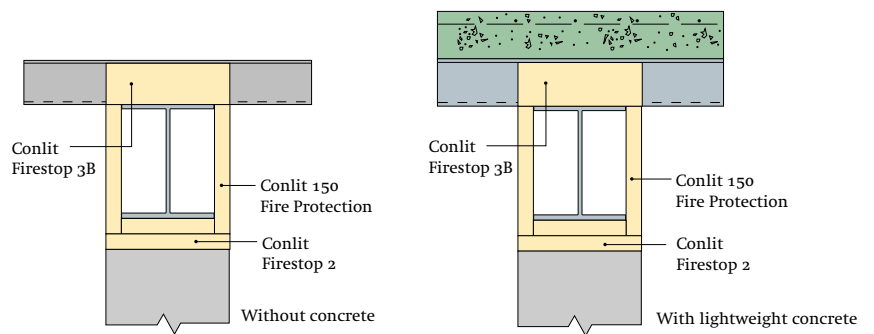


Figure 3 Profiled metal deck with or without lightweight concrete over universal beam

Figure 4

Wall/Firestop width (mm)	Fire resistance (hrs)
100	2
150	3
200	4

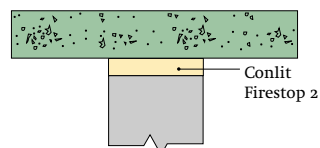


Figure 4 Concrete deck over blockwork wall

Applications and fire resistance periods (continued)

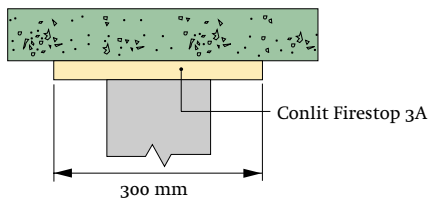


Figure 5 With extended firestopping

In some constructions the fire resistance of a deck horizontally over the top of a wall may be lower than that achieved by the wall itself. In such cases an extended Firestop 3A is required.

Wall width (mm)	Fire resistance (hrs)
100	3
150	4
200	4

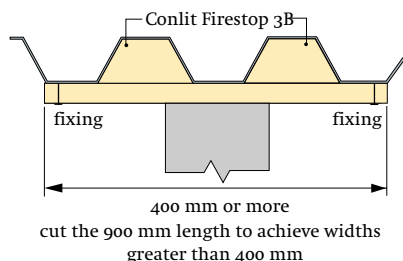
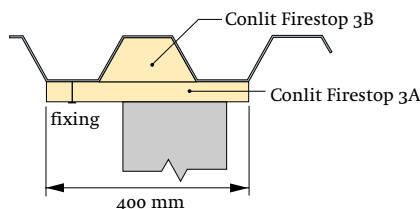


Figure 6 Metal deck with profiles positioned asymmetrically to wall

In addition to limiting thermal transmission along the soffit of a deck (Figure 5), Firestop 3A can be used to provide support to the Firestop 3B in those cases where the profiles are positioned asymmetrically in relation to the wall (Figure 6).

Wall width (mm)	Fire resistance (hrs)
100	3
150	3
200	4

Note Extended firestopping may need to be supported by fire resistant fixings to soffits to avoid edge sag, depending on overhang and soffit flatness. Supports are essential for extensions greater than 100 mm (Building Regulations 1991, Approved Document B, para 10.13.a).

Typical specification

All firestopping over compartment walls and similar construction gaps to be made using Conlit Firestop Systems, supplied by Rockwool Ltd, Pencoed, Bridgend CF35 6NY, to meet the requirements of BS 476: Part 20: 1987 for the evaluation criteria of stability, integrity and insulation performance in accordance with Loss Prevention Council Assessment No. CC 82633/RHE 10/7/92.

All joints of Conlit firestopping materials to be closely butted and the installation to be carried out in accordance with the manufacturer's recommendations. For details refer to Rockwool Data Sheet No. 041.

Work on site

Handling and storage

Rockwool Conlit Firestop materials are light and easy to handle and should be cut using a sharp bladed knife. Store in dry conditions.

Maintenance

Once installed, Conlit Firestop materials will need no maintenance unless disturbed.

Health and safety

A COSHH Data sheet is available from Rockwool's Marketing Services Department.

Current HSE 'CHIP' Regulations and EU Directive 97/69/EC confirm that Rockwool fibres are not classified as a possible carcinogen.

Ordering

For rectangular strips please state type (Firestop 2 or 3A), thickness, width and total length required.

For trapezoidal strips (Firestop 3B), please state:

- 1 Proprietary name for profiled deck
- 2 Whether upper or lower profile filling
- 3 Dimensions if available
- 4 Total length required

For dovetail infill strips, please state:

- 1 Proprietary name for profiled deck
- 2 Dimensions of dovetail if available
- 3 Total length required

References

Evoide Idenden Ltd., Stafford.
Tel 01785 257755

Technical Helpline

Technical advice relating to Conlit Firestop systems is available from the Rockwool Technical Helpline Services Department on 0871 222 1780.

Rockwool Limited reserves the right to alter or amend the specification of products without notice as our policy is one of constant improvement.

The information contained in this data sheet is believed to be correct at the date of publication. Whilst Rockwool will endeavour to keep its publications up to date, readers will appreciate that between publications there may be pertinent changes in the law, or other developments affecting the accuracy of the information contained in this data sheet.

The above applications do not necessarily represent an exhaustive list of applications for Conlit Firestop. Rockwool Limited does not accept responsibility for the consequences of using Conlit Firestop in applications different from those described above. Expert advice should be sought where such different applications are contemplated, or where the extent of any listed application is in doubt.



Wilhams Insulation Far East Sdn Bhd (340166M)
15 & 17 Jalan U5/23, Seksyen U5,
Mah Sing Integrated Industrial Park
40150 Shah Alam, Selangor Darul Ehsan, Malaysia
Tel: 603-7846 6728 Fax: 603-7846 6540
E-mail: wife@tm.net.my