



TCB Cavity Barrier

A polyethylene-sleeved Rockwool strip providing fire safety for cavities

As part of the comprehensive FirePro range of fire protection products, standard TCB Cavity Barrier comprises a strip of Rockwool inserted into a translucent red polyethylene sleeve incorporating two flanges designed for fixing. The sleeve eliminates the need for weather protection during installation and is overprinted with fixing instructions for ease of use. (Non-standard sizes have a single flange only.)

Rockwool TCB is used to provide a ½ hour cavity barrier as defined in table A1 of appendix A to Approved Document B of the Building Regulations 1991 (2000 Edition.)

Advantages

- Meets Building Regulations requirements
- Simple to install and fix
- Water repellent
- Maintenance free
- Backed by Fire Test information



TCB Cavity Barrier installed at separating wall position

Nominal dimensions

Standard TCBs are supplied to suit cavity widths between 50 and 110mm, and are normally available from stock. The TCBs are manufactured in lengths of 1200mm. TCBs can also be supplied to suit cavity widths greater than 110mm up to a maximum width of 140mm. (These are referred to as non-standard TCBs, encapsulated in a translucent red polyethylene sleeve, with a single fixing flange). Please quote cavity size when ordering.



Description, performance and properties

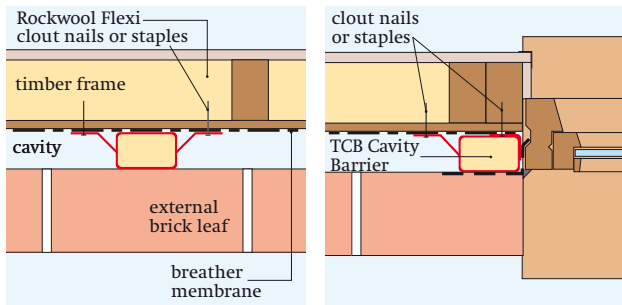


Figure 1 Vertical application of TCB in timber frame

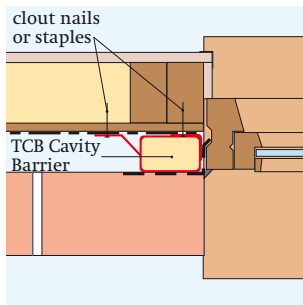


Figure 2 TCB at door or window jamb in timber frame

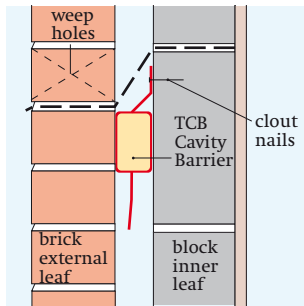


Figure 3 Horizontal application of TCB in masonry cavity wall

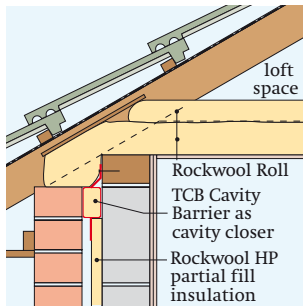


Figure 4 TCB used as cavity closer

Design considerations

In timber framed dwellings, cavity barriers and firestops are required to prevent the spread of fire through walls, floors and cavities. To meet the minimum Standards and Regulations, two-storey dwellings and above require cavities to be closed by cavity barriers at specified intervals to meet the specific building purpose group.

The combined use of TCB and Rockwool Fire Barrier (Timber Frame) will meet the requirements of the Building Regulation for compartment walls between dwellings. See Flexi product data sheet.

Size selection

The use of the correct size of TCB Cavity Barrier is essential. In the event of fire breaking into the cavity, TCB Cavity Barrier does not rely on the plastic flanges to hold it in place, but on its compression between the inner leaf and external brickwork or blockwork. TCB Cavity Barrier is designed to compress to a tight fit in cavities. It is essential to specify the TCB by reference to the actual cavity width constructed.

Design details

TCB vertical application

In vertical applications, both flanges of the standard TCB are fixed to the inner leaf (Figure 1).

TCB horizontal Application

In horizontal applications the top flange of the plastic sleeve is fixed to the inner leaf. In a timber frame construction the breather membrane should be cut to overlap the top flange of the TCB.

In masonry walls it is preferable to protect the TCB with a cavity tray (Figure 3).

TCB as the cavity closer

Where solid cavity closers are used, cracks often occur at the top of the wall due to the differential vertical movement of the two masonry leaves. The movement often manifests itself as a horizontal crack in the plaster just below the ceiling line. This can be avoided by using TCB as the cavity closer, as shown in Figure 4 (see the NHBC Standards Extra 'Avoiding cracking at the top of walls').

Standards and approvals

Small cavity barriers

The use of TCB Cavity Barriers satisfies the requirements of Approved Document 'B' Section B3 of the Building Regulations, England and Wales; Technical Standards Part D 2.19 of the Building Standards (Scotland); Technical Booklet 'E' Sections 3.27-3.34 Northern Ireland; NHBC Standards chapter 6.2 and Zurich Municipal Building Guarantees Section 6 with respect to cavity barriers and fire stops in timber framed buildings.

Installation

Fixing of the TCB Cavity Barrier to the inner leaf is carried out only at the flanges using non-corrosive staples or clout nails. These fixings should be located at maximum 150mm centres in both horizontal and vertical applications. Joints between TCB's must be closely butted. At door and window jambs, the horizontal barrier should overlap the vertical barrier to ensure a close butted joint is maintained between both barriers.

Typical specification

Cavity barriers to be Rockwool TCB to suit cavity width of (insert cavity width as appropriate), spaced horizontally and vertically at the positions shown on design details (insert drawing or schedule reference numbers) and fixed through the flanges to the cavity lining at not greater than 150mm centres.

Note: All joints and intersections of cavity barriers to be closely butted and the installation to be carried out in accordance with the manufacturer's recommendations.

Health and safety

Current HSE 'CHIP' Regulations and EU directive 97/69/EC confirm the safety of Rockwool mineral wool; Rockwool fibres are not classified as a possible human carcinogen.

The maximum exposure limit for mineral wool is 5mg/m³, 8 hour time-weighted average.

A Material Safety Data Sheet is available from the Rockwool Marketing Services Department to assist in the preparation of risk assessments, as required by the Control of Substances Hazardous to Health Regulations (COSHH).

Environment

Rockwool insulation relies on entrapped air for its thermal properties; air is not a VOC and it does not have Global Warming Potential (GWP) or Ozone Depleting Potential (ODP).



More information



For further details visit our website at www.rockwool-firepro.co.uk

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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 TCB Cavity Barrier. Rockwool Limited does not accept responsibility for the consequences of using TCB Cavity Barrier 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.