Sep 2021

WILHAMS

WILHAMS INSULATION FAR EAST SDN BHD

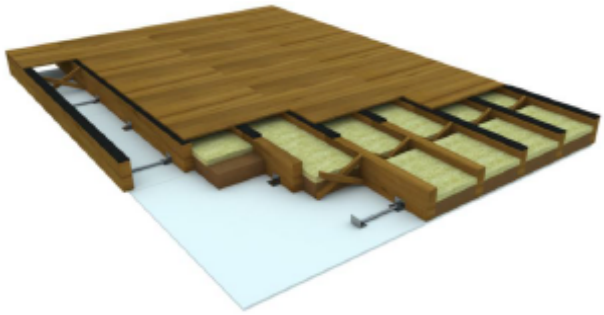
FirePro®

CF Fire Protection System

Fire protection solution for upgrading timber floors

As part of the comprehensive FirePro® range of fire protection products, FirePro® CF Fire Protection system provides a method of increasing the fire resistance of timber compartment floors without the need of removing ceilings.

Tested to BS 476 Part 21, FirePro® CF Fire Protection System provides up to 2 hours fire protection.



Advantages

- Suitable for upgrading fire rating of heritage buildings
- Light weight solution
- Fire rated up to 2 hours
- Load bearing capacity
- Integrated fire rated penetration seals
- Fast and easy installation solution
- Improved acoustic performance

Description

FirePro® CF Fire Protection System comprises of 80mm thick CF Slab, high density low resin mineral wool, supported by CF 50 brackets which are mechanically fastened to existing timber joists and finished with timber floor boards on the upper face.

The underside of the timber joists are lined with either an existing gypsum board ceiling or a 12.5mm thick standard core gypsum board, suitably taped and jointed. A second layer of fire rated 15mm thick gypsum board is installed with all joints offset to the first layer.

Any penetrations are treated using tested solutions shown in the installation method below.

Installation

1. Remove all timber floor boards and any debris within the floor cavity..
2. The CF50 brackets can be installed at spans of 500mm or 600mm, whichever provides least wastage of the CF Slabs.
3. Nail or screw CF50 L shaped brackets to both sides of timber joists at the measured 500mm or 600mm distances.
4. Cut the CF slabs oversize by 3mm to allow for compression fit.
5. Install the CF Slabs between joists, firmly pushing them onto the CF50 brackets. See Figure 3.
6. Before proceeding to the next step, check that the slabs are firmly fitted.
7. Where herringbone cross timber occurs within the timber floor, pour H144 grade compound into voids in and around herringbones to finish level with the slabs either side.
8. Where penetrations occur in the CF Fire Protection System floor, please see Figure 1, Figure 2 and Figure 4. Any penetrations not explained above, please contact our Tecnical Department.

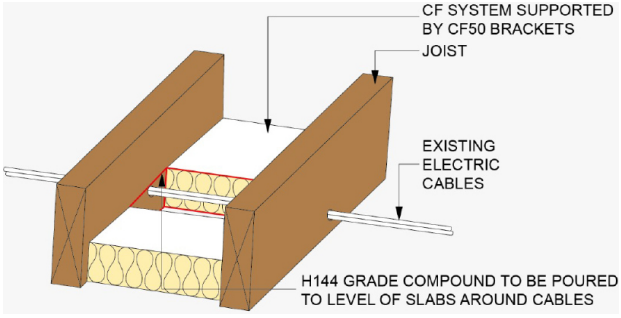


Figure 1: Fire protection where existing horizontal cables are present within fire protection zone.

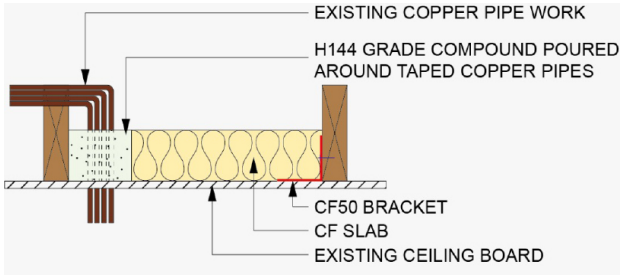


Figure 2: Fire protection detail where existing pipes are penetrating vertically through an existing floor.

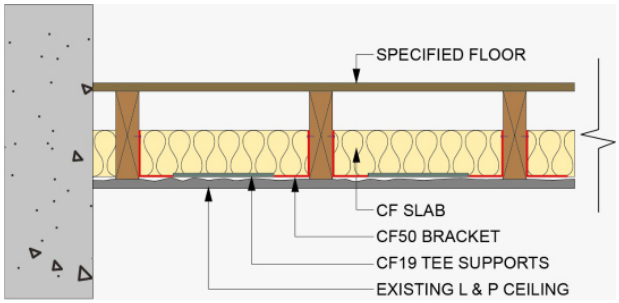


Figure 3

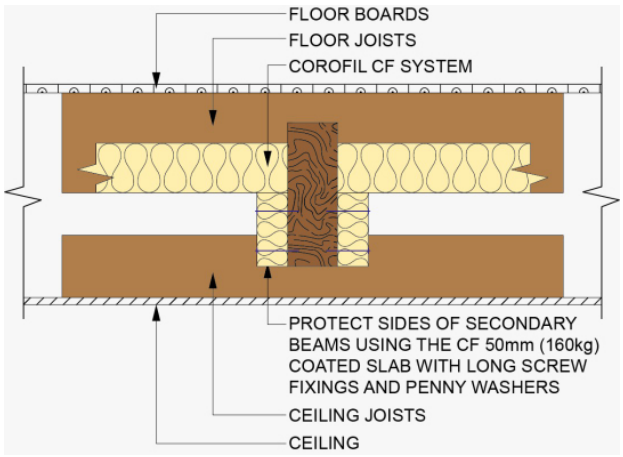


Figure 4

Load Bearing Capacity

The CF Fire Protection System has been tested for a load bearing capacity of 1.6kN/m² for up to 135 minutes or 2.35kN/m² for up to 108 minutes when tested in accordance with BS 476 Part 21.

Fire Rating

Timber floors must be supported from appropiate masonry/concrete or steel constructions that have at least the fire resistance required for the floors to BS476 Part 21/22 and are capable of providing adequate support to the constructions for the required period of fire resistance.

The construction and loading of timber floors must comply with BS 5268 Part 2.

The CF Fire Protection System has been tested for up to 2 hours to BS 476 Part 21.

Projects List

The CF Fire Protection System has been installed at the following prestigious buildings.

1. St James Palace
2. Buckingham Palace
3. Royal Mint
4. Tower of London
5. Kensington Palace
6. Clarence House
7. St Dunstan's College
8. Queen Mary's Hospital
9. Fenton House
10. Eton College
11. Balmoral Castle
12. Hampton Court Palace
13. Calke Abbey
14. Stoneleigh Abbey
15. Bluebell Railway
16. Dublin Castle

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