

CONLIT® MC System

Fire protection solution for curtain wall

The CONLIT® MC SYSTEM is a fireproof light weight curtain wall fire protection solution. It is applied on to the interior of the curtain wall where it abutts the concrete floor slab with the intention of limiting the risk of vertical external propagation of both the passage of the fire and smoke from one compartment to another. The system consists of CONLIT® MC 120 Plain slab in conjunction with a series of mechanical fastenings.

Advantages

- Contributes to GBI requirements
- Aids MS 1525 compliance
- Fire tested to EN 1364: Part 4 achieves EI 120
- Simple, quick and dry installation with few elements
- Easy assembly. Reducing installation time over 30%
- Certified system
- Built-in thermal and acoustic insulation
- Floor seal
- Guaranteed to block the passage of smoke
- Reduces thermal bridging between the curtain wall and the concrete floor slab
- Reduces the transmission of noise through the structural elements
- Unitized system: possibility to install part of the fire protection in the curtain wall production line
- Complete system: ROCKWOOL supplies all the required components

Description

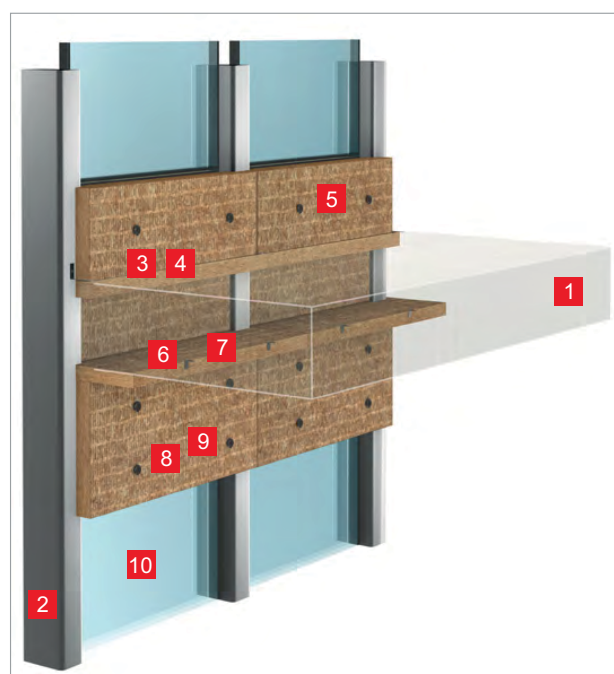
CONLIT® MC 120 is manufactured from a melt of volcanic rock. The molten rock is spun into a wool and immediately impregnated with special resins for handling and shaping. The material is then compressed, cured and formed into slabs.

Standard sheet size

1800 x 1200mm (Other sizes are available upon request)

Thickness

25*, 30, 40, 50, 60, 75 and 110mm (Other thicknesses are available upon request)



1. Concrete floor slab
2. Curtain wall structure
3. CONLIT® MC Angle Brace
4. Mechanical fastening with metal plug
5. 2 x 50mm thick CONLIT® MC 120 Plain slabs
6. CONLIT® MC "Z" Clip
7. CONLIT® MC Anchor
8. CONLIT® ACR 50 spiral screw
9. CONLIT® ACR 100 spiral screw
10. (Unlabeled in list, likely the floor seal or insulation layer)

Density

The nominal density of CONLIT® MC 120 is 180kg/m³ unless otherwise specified.

Finishes

CONLIT® MC 120 is supplied plain unless otherwise specified. It is available with a number of facing options upon request, which are:-

- Non-woven mineral black tissue
- Non-woven mineral white tissue
- Aluminium foil

Performance and Properties

Fire

Reaction to fire

The performance of CONLIT® MC 120 Plain slab has been tested according to *EN ISO 1182:2010. Reaction to fire tests for products. Non-combustibility test* and *EN ISO 1716:2010. Reaction to fire tests for products. Determination of the gross heat of combustion (calorific value)* and determined according to *EN 13501-1:2007+A1:2009. Fire classification of construction products and building elements. Part 1: Classification using data from reaction to fire tests*, fire classification of construction products and building elements rated as A1 classification using test data from reaction to fire tests.

Additional components made of steel, have a class A1 according to Decision 96/603/EC and Decision 2000/605/EC.

Fire resistance

Tested and assessed according to *EN 1364-4:2007. Fire resistance tests for non-loadbearing elements. Part 4: Curtain walling - Part configuration*, the fire resistance classification has been defined according to *EN 13501-2:2007+A1:2009. Fire classification of construction product and building elements. Part 2: Classification using data from fire resistance tests, excluding ventilation services* achieving EI 120.

Installation

1. Cut the CONLIT® MC 120 Plain slab and fit it tightly between the mullions and transoms.
2. Position the CONLIT® MC Angle Brace so it abutts the mineral wool and concrete floor slab. Fasten the Angle Brace to the concrete, through the hole provided, using the mechanical fastening with metal plug. Then, again using the other hole in the bracket, install the CONLIT® ACR 50 Screw, to the CONLIT® MC 120 Plain slab, tightening it firmly. The distance between brackets shall not exceed 600mm. This makes the CONLIT® MC 120 Plain slab independent of the curtain wall and secured to the floor.
3. Cut a strip of CONLIT® MC 120 Plain slab and press-fit it into the upper opening of the floor edge, by at least 50mm. At the underside of the floor, place another strip wider than the cavity by at least 100mm. Impale the mineral wool strip using the CONLIT® MC "Z" Clip approximately through the center of its thickness. Then mechanically fasten the CONLIT® MC "Z" Clip, to the under side of the concrete floor slab using the CONLIT® MC Rivet 6.6 / 35. The distance between the CONLIT® MC "Z" Clips shall not exceed 400mm.
4. Place another CONLIT® MC 120 Plain slab on top of the concrete floor slab, thus protecting the curtain wall transoms and mullions. Fasten this to the piece that has been friction fitted between the mullions and transoms using the CONLIT® ACR 100 SCREWS, installing them at a distance of no greater than 400mm.
5. Repeat this process from the underside of the floor slab.

FirePro® is the registered trademark of Wilhams Insulation Far East Sdn Bhd



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