Nullifire
Smart Protection

## Installation Instructions:

Ensure within aperture is clean and free of debris, loose cement, and remove all dust from surfaces requiring installation.

Details A, B & D- Loadbearing seals up to 300mm width unlimited length or 1100mm x 1100mm (1.21m2)

1. Cut 50mm 140 or 180kg Nullifire FI140 Shutter Slab, to tightly fit within aperture.
2. Fit FI140 Shutter Slab into aperture to provide a minimum measurement of 100mm from the top edge of floor slab.
3. Select required quantity of FR230 Intucompound for void fill, based approximately upon 3.75 bags per 1m x 1m opening to achieve 100mm thickness.
4. Mix approxminately 25% of the overall volume of FR230 intucompound with water, approximately upon 3.75 bags per 1m x 1m opening to achieve 100mm thickness
5. Trowel into void, ensure filling any voids where FR230 Intucompound may bleed through shuttering and allow to cure for approximately 30 minutes.
6. Mix the remaining volume of FR230 Intucompound with water, approximately 1.0 parts water to 2 parts FR230 Intucompound.
7. Pour mixed FR230 Intucompound into aperture until flush with the top side of the floor slab.
8. Leave to cure. Fully cured in 30 days, this will depend upon atmospheric conditions.

Note to Detail D:
A stiffer mix of FR230 Intucompound may be used to enable vertical installation. If using shutterbatt, the product may be left installed, proven in floor testing. However, if another form of shuttering is utilise it must be removed.

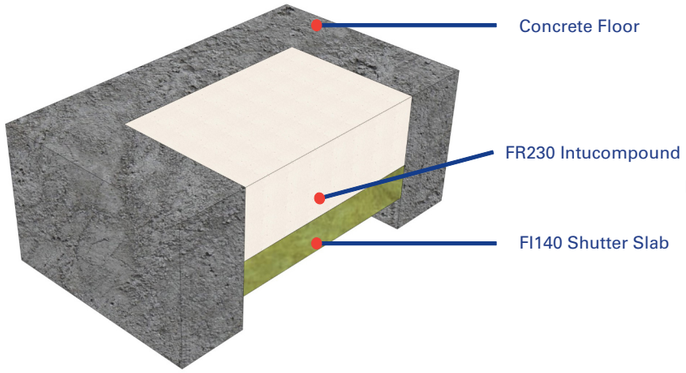
Detail C- loadbearing seals above 300mm width or above 1100mm x 1100mm (1.21m2) floors only.

1. Cut 50 x 50 x 2mm galvanised angle to perimeter of aperture and fix at 300 centres, using FFS 82mm self drill, to form 150mm depth from the top side of concrete floor to face of angle.
2. Cut 50 x 50 x 2mm galvanised angle to form intermediate back to back angle detail across the span of seal, and position to centres as highlighted within table 1 as per span requirements.
3. Fix back to back angles and junctions with suitable metal fixings.
4. Cut 50mm 140 or 180kg, FI140 Shutter Slab to tightly fit within framework.
5. Fit FI140 Shutter Slab into framework to provide a minimum measurement of 100mm from the top edge of floor slab.
6. Follow instructions from details A & B instructions 4 to 9 as above.

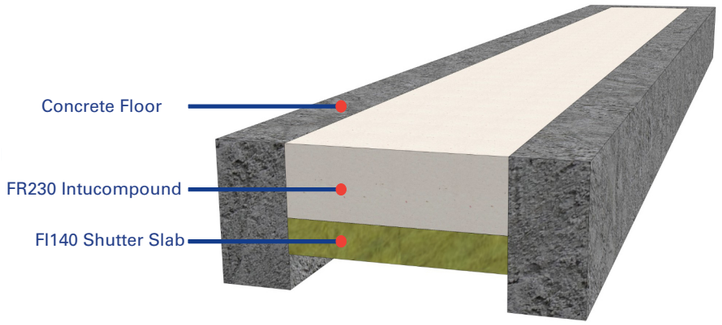
Table 1:

| Span | Back to Back Angle Centre |
|---|---|
| Up to 0.3m or 1.21m2 | Not Required |
| Over 0.3m or 1.21m2 to 1.3 | 600mm |
| 1.3m to 2.0m | 400mm |

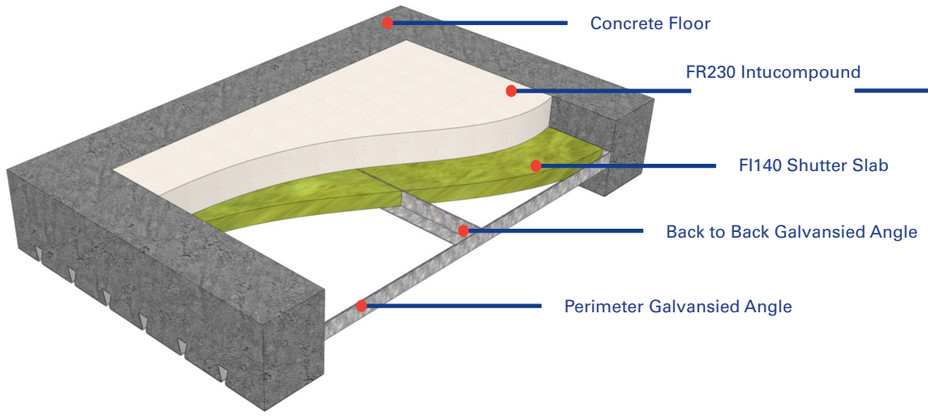
**Detail A - Loadbearing seals up to 1100mm x 1100mm (1.21m2)**



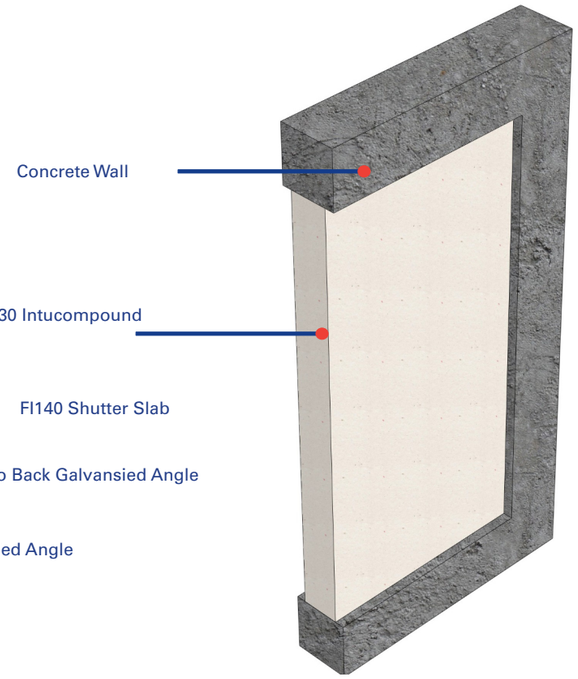

**Detail B - Loadbearing seals up to 300mm width unlimited length**




**Detail C - Over 300mm width or above 1100mm x 1100mm (1.21m2)**




**Detail D - Seals up to 1100mm x 1100mm (1.21m2)**




## Test Information:

**Test: BSEN 1366 / BS476**

Products:

FR230 Intucompound and FI140 Shutter Slab

Scenario:

Loadbearing blank seal to concrete floor up to 2.5kN/m2 and wall

Penetrations:

As per Nullifire detail

Void Size:

Up to 2m span

Fire Resistance:
Up to

100mm Thick 240 Integrity
240 Insulation

Please see specific detail for fire rating. Fire ratings contained herein are based upon plain seals only.

Acoustic:

Up to 65dB.

FR230 Intucompound is load bearing up to 2.5kN/m2 at 100mm thickness only, without the requirement for reinforcement when installed within voids that do not exceed 1.21m2, or 300mm width/depth. This is based upon all four sides of opening being rigid concrete construction.

Service penetrations must be assessed for movement/thermal expansion in accordance with Document B.

Please ensure all technical data is digested and understood prior to installation of Nullifire products.

## Drawing Title:

Openings within concrete floor construction

## Drawing Reference No:

PS-004
A3

Construction Products Group Europe

The published fire ratings have been achieved by following the instructions set out above. Use of alternative components or deviations from the instructions in anyway will remove Nullifire from any design liability. Nullifire will not accept responsibility for the consequences of the using our products in applications or purposes not authorised by Nullifire. Expert advise should be sought where such applications are contemplated.
The information contained within this drawing is believed to be correct on the date of publication, and is based upon tested and certified solutions. The policy of Nullifire is one of constant improvement. Installers must therefore ensure that they are following the latest published drawings and instructions. Whilst we will endeavour to keep our publications up to date, the accuracy of the information contained within this drawing may be affected by pertinent changes in the law or regulatory requirements and alternations/amendments to the specification of Nullifire products.

For more information, please contact a member of our technical team on: firehelp@cpg-europe.com

2020-04 v01