

CI/SfB	(29)	(k2)
CAW P10		
Uniclass JP10:L68114		

Nullifire

Smart Protection

Product Information

Description

FR230 Intucompound is a gypsum based mortar used to reinstate the fire resistance performance of floor & wall constructions where they have been breached with apertures for the penetration of single or multiple services. FR230 provides a safe working platform for loads up to 2.5 kN/m² when installed in full accordance to our recommendations.

Usage / Purpose

FR230 is used to stop the spread of fire and smoke around services that pass through compartment walls and floors, whilst providing a load bearing capability (refer to application instructions). The system also provides thermal, acoustic and air sealing performance.

FR230 is suitable for the following service penetrations: single and bunched cables, cable trays/ladders/baskets, non-combustible pipes. Also suitable for cable trunking, combustible pipes, insulated non-combustible pipes, in conjunction with a suitable Nullifire closer device (for example FP302 Intustrap or FS709 HP).

May also be used around dampers & ventilation ducts (consult manufacturer). Typical areas of use include health and leisure facilities, schools, universities, hotels, commercial, retail and industrial buildings.

Traceability & Product Identification

- Nullifire is bringing unique identification technologies to the market, offering architects, specifiers, main contractors, and applicators guaranteed traceability of product on-site. Our traceability technologies are not visible to the naked eye, and do not affect performance or product aesthetics.
- FB230 features Optifire+, a unique pigment technology, visible only with a specific Nullifire detector ; Optifire+ offers lifetime identification, and remains traceable even after a fire.

Usage Guidelines

Always read SDS, pre-application guidance and relevant application detail prior to application. Ensure the latest documents are downloaded prior to every project commencement.

Protective Equipment

Use in well ventilated conditions and ensure all recommended protective equipment is worn during handling & use of this product. For full recommendation, refer to safety data sheet.

Preparation

- All substrates must be suitable, clean and sound, free from dirt, grease and other contamination.
- Thermal expansion requirements of services must be considered at this point.
- Ensure FR230 will not be cast across a movement joint.

Installation

Floor installation up to 1.21 m² (or a maximum span 300 mm x infinite length)

- Measure opening size and service locations and dimensions.
- Transfer measurements onto F1140 50 mm Shutter Slab.
- Ensuring suitable compression, locate F1140 between service and substrate 100mm beneath floor level, completely filling opening at that level.
- F1140 may be surface mounted beneath the opening and secured to the floor slab using mechanical fixings / if the required 100 mm depth can not be maintained, an upstand may be required (consult CPG UK Technical Service).
- Ensure all shutter breaches or openings around services are filled prior to FR230 pour. This may be achieved using FF197 Fire Rated PU Foam or FR230 at a 3:1 mix ratio.
- Mix FR230 to the required ratio (see Technical Table for pour/trowel mix ratios) ensuring non contaminated water supply and clean tools are used (power mixers are recommended).

FR230

Intucompound Fire Mortar

up to
240
mins

optifire+



Key Benefits Summary

- Up to 4 hours fire resistance - Tested to EN 1366-3 & 4
- 1.21 m² without framework requirement
- Load and impact capability after 50 hours only
- Flows easily around and behind services
- Rapid setting, zero shrinkage formulation
- Can be used as pourable or trowel grade
- Acoustic and thermal performance

This product is certified to applicable European (EN) standards and UL-EU Mark service requirements.
CERT. N° UL-EU-01057-CPR



CE
ETA 20/1316

certifire
APPROVAL N° CF5378



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- Mix sufficient FR230 to achieve 40 to 50% fill ratio (40 to 50 mm). Wait for 60 minutes and then top up to required level (100 mm).
- Float with a flat trowel and light water spray.
- If waterproofing agent is to be applied, full cure (30 days) must be achieved before application.

Floor Installation above 1.21 m² (or a maximum span of 2000 mm x infinite length)

- An angle framework system will be required, using 50 x 50 x 2 mm galvanised steel slotted angle.
- Measure around perimeter and cut angles to suit.
- Secure to surrounding substrate using suitable non-combustible, hammer-in fixings, with a minimum embedment of 50 mm at 300 mm centres or 2 fixings minimum per cut piece.
- Across the span, lay back to back 50 x 50 x 2 mm angles at 400 mm centres (back to back angles should be secured to each other, however not to the perimeter angle). In the event of an obstacle, the angle should be taken to each side of the service, and an additional piece placed parallel to the span within 50 mm of the service.
- As per smaller openings, measure all service locations within the framework and transfer dimensions onto FI140 Shutter Slab (FI140 will sit 2 mm above vertical angle flange).
- Ensure all shutter breaches or opening around services are filled prior to FR230 pour; this may be achieved using FF197 Fire Rated PU Foam or FR230 at a 3:1 mix ratio.
- Mix FR230 to the required ratio (see Technical Table for pour / trowel mix ratios) ensuring non contaminated water supply and clean tools are used (power mixers are recommended).
- Mix sufficient FR230 to achieve 40 to 50% fill ratio (40 to 50 mm). Wait for 60 minutes and then top up to required level (100 mm).
- Float with a flat trowel and light water spray.
- If waterproofing agent is to be applied, full cure (30 days) must be achieved before application.

Wall Installation up to 1.21 m²

- Ensure any ceiling or soffit deflection is considered at this point, as a movement joint will be required at the head of the seal if movement is to be evident (contact CPG Technical Service for more information).
- Measure opening size and service locations and dimensions.
- Transfer measurements onto FI140 50 mm Shutter Slab.
- Ensuring suitable compression, locate FI140 between service and substrate either within the opening or to one side of the wall. Repeat on opposing side in 100 mm to 200 mm increments (ensure there is minimum 100 mm between internal faces of shuttering).
- Ensure all shutter breaches or opening around services are filled prior to FR230 pour. This may be achieved using FF197 Fire Rated PU Foam or FR230 at a 3:1 mix ratio.
- Mix FR230 to the required ratio (see Technical Table for pour / trowel mix ratios) ensuring non contaminated water supply and clean tools are used (power mixers are recommended).
- Mix sufficient FR230 and pour to achieve the required height of fill behind the low shutter.
- Additional shutters will be required as you progress. The last area to complete may require a trowel grade mix-ratio.
- Skim with a flat trowel and a fresh mix if appearance requires.
- Wait for 120 minutes prior to removing any shuttering.
- If waterproofing agent is to be applied, full cure (30 days) must be achieved before application.

Important Information

- Rigid floors must have a minimum thickness of 150 mm (walls 100 mm) and comprise aerated concrete or concrete with a minimum density of 650 kg/m³.
- The supporting construction must be classified in accordance with EN 13501-2 for the required fire resistance and be suitable for the imposed load of the FR230.
- FR230 may be used to seal apertures in the separating element up to 1100 mm x 1100 mm in a floor or wall (without additional reinforcement requirements).
- FR230 may be used to seal apertures above 1.21m² with additional reinforcement (consult CPG UK Technical Service).
- Re-bar may not be used within a FR230 fire seal as a load benefit.
- FR230 can be coated with any masonry paint to achieve a required colour.
- If the floor slab is less than 150 mm thick, FI140 Shutter Slab should be face fixed to the underside using suitable anchors (alternative products may be used for shuttering, however if your chosen shutter is combustible, it must be removed after 50 hours).
- FR230 should never be cast across a movement joint nor supported by a non-load bearing element.
- Do not try to extend the working time by adding additional water.
- Always mix in clean buckets. Using dirty buckets with mortar residue from previous mixes can reduce working time or prevent the product from achieving a correct chemical cure and bond.

Packaging

20 kg bag

Availability

Direct from Tremco CPG UK Limited (see details on this TDS).



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Technical Data

Property	Result
Mix Ratio	2:1.5 (pouring) or 2:1 (trowelling) with water
Yield	4 bags/m ² at 100 mm depth
Density	Dry: 580 kg/m ³ Wet mix (ratio 2:1): 1500 kg/m ³ Cured (ratio 2:1): 1200 kg/m ³
Minimum application temperature	+3°C (for minimum 2 hours)
Minimum water temperature	+3°C
Load bearing capability	2.5 kN/m ² after 50 hours (tested to a 1000 kg point load)
Working life	10 to 20 minutes
Touch dry	60 to 90 minutes
Full cure	30 days at 20°C
Maximum unframed opening	1.21m ²
Maximum recommended supported span	2 metres (for larger spans, a structural engineer should be consulted - CPG UK Technical Service will provide load data)
Storage	Store in secure, dry warehouse conditions between +5°C and +30°C
Shelf Life	12 months when stored as recommended in original unopened packaging

Performance Data

Performance examples of FR230 Penetration Seals in Rigid Floors 150 mm thick (min.)

Installation	Service	Ancillary Product	Classification
Top Side	Blank Seal	-	EI240
Top Side	100 mm Cable Bundle	FB750 Intubatt	EI240
Top Side	Cable	-	EI240
Top Side	Cable Ladder	-	EI240
Top Side	Cable Tray	-	EI240
Top Side	Combustible Pipe Ø160	FP302 Intustrap	EI240
Top Side	Composite Multilayer Pipe Ø90	FP302 Intustrap	EI240
Top Side	Insulated Non-Combustible Pipe Ø14	FP160 Intusleeve	EI240

Performance examples of FR230 Penetration Seals in Rigid Walls 100 mm thick (min.)

Installation	Service	Ancillary Product	Classification
Full Width	Cable	-	EI240
Full Width	Cable Ladder	-	EI240
Full Width	Insulated Non-Combustible Pipe Ø15	FP302 Intustrap	EI240
Full Width	Insulated Non-Combustible Pipe Ø170	FI140 Intuflex	EI180

Performance examples of FR230 Linear Joint Seals in Rigid Walls 150 mm thick (min.)

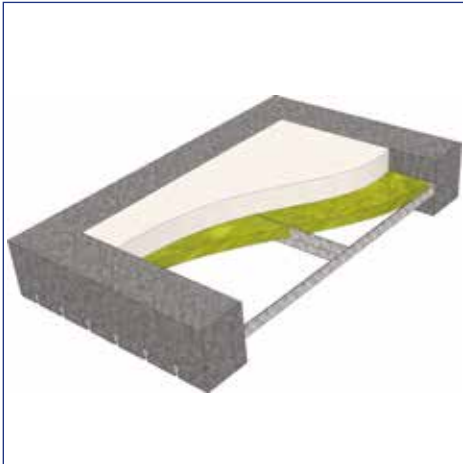
Installation	Installation	Seal Depth (mm)	Classification		
			Integrity & Insulation	Application & Usage	Gap Width Range
AAC-AAC	Fire Side	50	EI120	T - X - F	W 5-50



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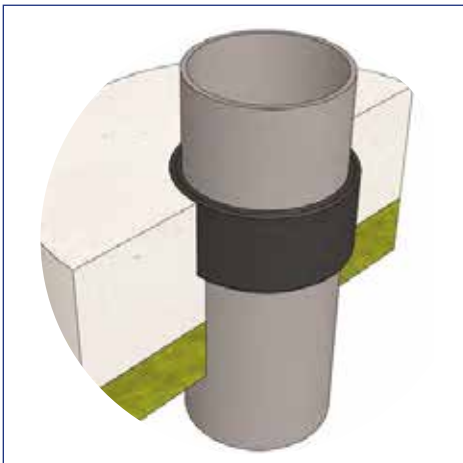
Typical Details



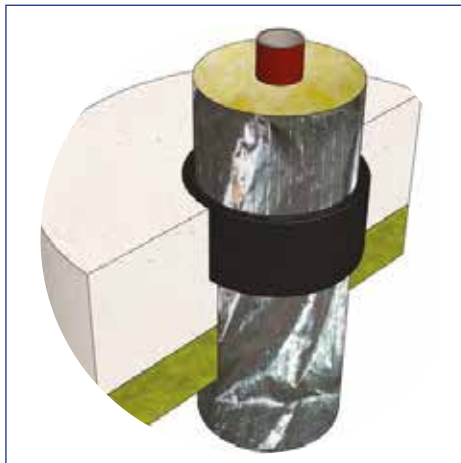
FR230 Intucompound + FI140 Shutter Slab + framework for loadbearing openings above 1100 mm x 1100 mm



FR230 Intucompound + FI140 Shutter Slab for loadbearing unlimited lengths seals up to 300 mm width



FR230 Intucompound + FI140 Shutter Slab + FP302 Intustrap for combustible pipe penetrations: EI120



FR230 Intucompound + FI140 Shutter Slab + FP302 Intustrap for insulated non-combustible pipe penetrations: EI120

Health & Safety Precautions

Safety data sheet must be read and understood before use.

Technical Service

Tremco CPG UK Limited has a team of experienced Technical Sales Representatives who provide assistance in the selection and specification of products. For more detailed information, service and advice, please call Customer Services on +44 (0)1942 251400.

Guarantee / Warranty

Tremco CPG UK Limited products are manufactured to rigid standards of quality. Any product which has been applied (a) in accordance with Tremco CPG UK Limited written instructions and (b) in any application recommended by Tremco CPG UK Limited, but which is proved to be defective, will be replaced free of charge.

No liability can be accepted for the information provided in this leaflet although it is published in good faith and believed to be correct.

Tremco CPG UK Limited reserves the right to alter product specifications without prior notice, in line with Company policy of continuous development and improvement.