

CI/SfB		(29)	(K2)
CAW	P10		
Uniclas JP10 L68114			
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KEY BENEFITS SUMMARY

- Provide an effective barrier to the spread of smoke and fire resistance tested in accordance with EN 1366-3, ETAG 026 and Classification 13501:2.
- Fire resistance up to 240 minutes
- Certifire 3rd party accreditation
- Load bearing up to 2.5 kN/m² (UDL), unsupported spans up to 700 mm
- Rapid setting, zero shrinkage formulation - can be used as pourable or trowel grade

PRODUCT INFORMATION

Description

Nullfire FR220 Firestopping Compound is a single part gypsum-based compound providing up to 4 hours fire resistance.

Usage / Purpose

Nullfire FR220 Firestopping Compound is used to stop the spread of smoke and fire along services that pass through compartment walls and floors, whilst providing an unsupported load bearing capacity. The system also provides thermal, acoustic and air sealing performance. FR220 is suitable for the following service penetrations; single and bunched cables, cable trays, cable ladders, trunking, steel and copper pipes, unsupported multiple ducting/damper penetrations, PVC and uPVC pipes. Typical areas of use include health and leisure facilities, schools, universities, commercial, retail and industrial buildings.

LIMITATIONS

For spans greater than 700 mm or parameters outside the scope as detailed in the TDS including seals that require a UDL in excess of 2.5 kN/m², please contact Nullfire Technical Services for support.

Packaging

20 kg bag

Availability

Direct from Nullfire (see back of leaflet for address and telephone details).

USAGE GUIDELINES

Necessary Tools

Gloves and eye protection, clean bucket, mixing paddle, trowel, water.

Preparation

- Clean all surfaces of loose particles, moisture, oils, grease and corrosive materials.
- Install non-combustible damming board/ shuttering to bottom of opening, measuring the required depth. The shuttering must be capable of supporting the wet weight of the compound.
- Porous contact surfaces should be dampened with water prior to the installation of FR220.
- If plastic services are evident B300 Pipe Wraps or B150 Pipe Collars should be used.

Preparing Formwork

- Structural support should be installed to secure the formwork/shuttering while the pour is made, this can be in various forms from angles fixed around the perimeter to supporting the formwork/ shuttering or from an 'Acrow Prop' from below during the pour.
- It is best to make sure that all formwork/ shuttering is able to support the wet weight of the product at all times.
- The installer must satisfy themselves that the formwork can support the loads.

For permanent form work:

- Cut and fix a plain mineral fibre batt 50 mm thick around the services and to the edges of the opening. The batt should be friction fitted to ensure a tight fit.

- The batt should be installed to ensure the compound pour is flush with the floor level and that sufficient depth is left for the FR220 Compound. Small gaps around services may be filled with loose mineral fibre or a stiff mix of FR220 Compound to reduce leakage of the FR220 Compound when poured.

For temporary formwork:

- Fix suitable formwork such as timber or plywood around all services and up to the edge of the opening.
- Formwork should be installed to ensure the compound pour is flush with the floor level and that sufficient depth is left for the FR220 Compound. Holes and gaps in the formwork should be sealed using mineral fibre, plastic sheet or other suitable methods.

Mixing

- FR220 can be mixed preferably by mechanical paddle or manually if required. Measure out the correct amount of clean water into a clean container to achieve the desired consistency 1
- Gradually add the FR220 stirring continually. Continue mixing until the FR220 is mixed to a smooth even consistency.
- Mix only enough material sufficient for use within the recommended pot life (20-30 minutes). Pot life and set times will be reduced for lower water content and higher temperatures.
- Installation should not be carried out when temperatures are above 35°C.
- Setting times are normally between 30 and 90 minutes.

Warning: Do not attempt to extend working time by remixing with additional water once the mortar has started to set, as this will interfere with the setting process. Always mix in clean buckets. Using dirty buckets containing remains of mortar from earlier mixes may reduce working time.

FR220

Installation - Walls

With mineral fibre batt:

- Fix a mineral fibre batt of 50 or 60 mm thickness around the services within the depth of the wall. The batt should be positioned at the centre of wall thickness allowing enough space for the correct thickness of FR220 Compound on either side of the batt.
- Shuttering should be fixed either side of the wall to allow correct depth of FR220 Compound. A space should be left at the top of the shuttering to allow the FR220 Compound to be poured into the void.

Without mineral fibre batt:

- Install shuttering on both sides of the wall ensuring the void is the correct depth for the FR220 Compound to meet the fire rating. A space should be left at the top of the shuttering to allow the FR220 Compound to be poured into the void.
- When using a stiff mix for trowelling shuttering may not be required for small openings. It may however be necessary to build up layers allowing each layer to start curing before the next is installed.

Installation - Floors

- Mix as per instructions and pour onto the formwork. Level off to the required thickness and allow to set. In some cases it may be practical to pour an initial layer of 10 mm thickness and allow this to set for approximately 1 hour before pouring the remaining FR220 Compound to the required final thickness.
- The Compound is normally finished flush with the surface of the concrete slab. Once the FR220 Compound has set temporary formwork should be removed.

Warning: Building up the seal in several operations with the individual layers being allowed to set will result in a weak laminated structure with severely reduced load bearing capability.

Coverage

Approximate volume of compound required per m² (excluding Services)

Seal thickness 100 mm

No. of bags 4

Maintenance

No maintenance required after installation.
Routine inspection recommended to ensure

no damage.

Storage

Store between +5°C and +30°C in dry conditions.

Shelf Life

At least 12 months when stored as recommended.

Health & Safety Precautions

Product Safety Data Sheet must be read and understood before use.

Technical Service

Nullifire 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 01942 251400.

Guarantee / Warranty

This information is offered in good faith but without guarantee or liability. In cases of doubt, users should consult with relevant authority.

Information given herein is supplied for your guidance only and is based upon the results of controlled tests and experience obtained in the application of the product referred to by Nullifire.

As the supplier only, Nullifire has no control over the method or conditions of application of the product and consequently no warranties expressed or implied are intended to be given as to the coverage or performance of the products mentioned or referred to herein and no liability will be excepted for any loss, damage or physical injury resulting from the use or application of the information, data or products mentioned or referred to herein.

FR220

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PERFORMANCE

Fire performance in accordance with EN1366-3, Classification 13501 2:2007 + A1: 2009, ETAG-026. Fire resistance classifications: The following fire protection classes are used: E = integrity, i.e. ability to isolate smoke gases, I = insulation, i.e. ability to prevent heat spread, C = Capped inside furnace, U = Uncapped outside of furnace or U = Uncapped inside of furnace, C = Capped outside of furnace

Penetration seal with FR220 Firestopping Compound installed the 100 mm depth of the floor, maximum seal size 1100 mm x 1110 mm	
Services	Classification
Copper pipe 18-107 mm Ø and 0.8 – 1.5 mm wall, insulated with 'Rockwool' (local interrupted 500 mm) 50 mm thick Rockwool H&V Pipe Section min 150 kg/m ³	E 240 C/U and C/C EI 30 C/U and C/C
Steel pipe 40-165 mm Ø and 3.0 -5.0 mm wall, insulated with 'Rockwool' (local interrupted 500 mm) 50 mm thick Rockwool H&V Pipe Section min 150 k/m ³	E 240 C/U and C/C EI120 C/U and C/C
Electrical cables up to 80 mm Ø, insulated with 25 mm thick Rockwool Duct Wrap 500 mm long min 45 kg/m ³	EI 120
Non-sheathed wire up to 24 mm Ø insulated with 25 mm thick Rockwool Duct Wrap 500 mm long min 45 kg/m ³	E 240 EI 60
Telecomm cables 21mm ø in bundles of up to 100 mm diameter with 25 mm thick Rockwool Duct Wrap 500 mm long min 45 kg/m ³	EI60

Penetration seal with FR220 Firestopping Compound installed the 100 mm depth of the wall, maximum seal size 1100 mm x 1110 mm

Services	Classification
Copper pipe 18-107 mm Ø and 0.8 – 1.5 mm wall, insulated with 'Rockwool' (local interrupted 500 mm) 50 mm thick Rockwool H&V Pipe Section min 150 kg/m ³	E 240 C/U and C/C EI 30 C/U and C/C
Steel pipe 40-165 mm Ø and 3.0 -5.0 mm wall, insulated with 'Rockwool' (local interrupted 500 mm) 50 mm thick Rockwool H&V Pipe Section min 150 k/m ³	E 240 C/U and C/C EI120 C/U and C/C
Electrical cables up to 80 mm Ø, insulated with 25 mm thick Rockwool Duct Wrap 500 mm long min 45 kg/m ³	E240 EI 180
Non-sheathed wire up to 24 mm Ø insulated with 25 mm thick Rockwool Duct Wrap 500 mm long min 45 kg/m ³	E 240 EI 60
Steel cable trays and cable ladders up to 500 mm wide insulated with Rockwool duct wrap	EI90
Telecomm cables 21mm Ø in bundles of up to 100 mm diameter with 25 mm thick Rockwool Duct Wrap 500 mm long min 45 kg/m ³	EI180

Penetration seal FR220 Firestopping Compound installed the 150 mm depth of the floor, maximum seal size 1100 mm x 1100 mm.

Services	Classification
Telecomm cables in bundles of up to 100 mm diameter with 25 mm thick Rockwool Duct Wrap 500 mm long min 45 kg/m ³	EI 180