

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

Product Information

Description

FR270 High Strength Structural Compound is a single part gypsum-based compound providing up to 4 hours fire resistance.

Usage / Purpose

FR270 High Strength Structural 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. FR270 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 1800 mm or seals that require a UDL in excess of 2.5 kN/m², please contact Technical Services for support.

Availability

Direct from tremco illbruck (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 FR270.
- If plastic services are evident FP300 Pipe Wraps or FP150 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 FORMWORK:

- 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 FR270 Compound. Small gaps around services may be filled with loose mineral fibre.

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 FR270 Compound. Holes and gaps in the formwork should be sealed using mineral fibre, plastic sheet or other suitable methods.

Mixing

- FR270 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 (FR270: water ratio):
Pourable Mix ratio of 3 : 1
Trowelable Mix ratio of 4 : 1
- Gradually add the FR270 stirring continually. Continue mixing until the FR270 is mixed to a smooth even consistency.
- Mix only enough material sufficient for use within the recommended pot life (10-20 minutes). Pot life and set times will be reduced for lower water content and higher temperatures.

Nullifire
Smart Protection

FR270

High Strength Structural Compound

up to
240
mins



Key Benefits Summary

- Fire resistance tested in accordance with EN 1366-3, ETAG 026 and Classification 13501:2
- Suitable for rigid and flexible walls
- Acoustics up to 50 dB
- Rapid setting, zero shrinkage formulation - can be used as pourable or trowel grade
- Minimum 25 years working life as per ETAG 026



FR270

High Strength Structural Compound

Nullifire
Smart Protection

- 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.

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 FR270 Compound on either side of the batt.

WITHOUT MINERAL FIBRE BATT:

- Install shuttering on both sides of the wall ensuring the void is the correct depth for the FR270 Compound to meet the fire rating. A space should be left at the top of the shuttering to allow the FR270 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 of 50 mm 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 FR270 Compound to the required final thickness.
- The Compound is normally finished flush with the surface of the concrete slab. Once the FR270 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:
Seal thickness 100 mm
No. of bags 6

Maintenance

No maintenance required after installation. Routine inspection recommended to ensure no damage.

Shelf Life

12 months minimum when stored as recommended.

Health & Safety Precautions

Safety data sheet must be read and understood before use.

Technical Service

tremco illbruck 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

tremco illbruck products are manufactured to rigid standards of quality. Any product which has been applied (a) in accordance with tremco illbruck written instructions and (b) in any application recommended by tremco illbruck, 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 illbruck Limited reserves the right to alter product specifications without prior notice, in line with Company policy of continuous development and improvement.

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

Services	Classification
Copper pipe 40-107 mm Ø and 1.5- 14.2 mm wall, insulated with 'LI' (local interrupted 500 mm) 50 mm thick Rockwool H&V Pipe Section min 150 kg/m ³	E 60 C/U EI 15 C/U
Steel pipe 40-115 mm Ø and 3.5-14.2 mm wall, insulated with 'LI' (local interrupted 500 mm) 50 mm thick Rockwool H&V Pipe Section min 150 k/m ³	EI 120 C/U
Steel pipe 160 mm Ø and 5- 14.2 mm wall, insulated with 'LI' (local interrupted 500 mm) 50 mm thick Rockwool H&V Pipe Section min 150 kg/m ³	E 120 C/U EI 90 C/U
Electrical cables up to 80 mm Ø, insulated with 25 mm thick Rockwool Duct Wrap 500 mm long min 45 kg/m ³	E 120 EI 60
Non-sheathed wire up to 24 mm Ø insulated with 25 mm thick Rockwool Duct Wrap 500 mm long min 45 kg/m ³	EI 120
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 120