

FZ100

Fire Safe Zone

Optimised for Offsite Construction

24-09-2026 / V 6

Description

FZ100 Fire Safe Zone is a fire protection system, and a single product solution tested to cover many fire stopping requirements. Nullifire's patented GXT (Graphite eXpansion Technology) has been incorporated within FZ100, encompassing the ability of many fire protection products within a single sheet.



Features and Benefits

- Up to 2 hours fire resistance - Tested to EN 1366-3
- Unique GXT technology
- Fire stops existing & future service penetrations
- Dry installation
- Fibre free: can be used in clean areas such as hospitals or food preparation facilities
- No odour
- Building service movement
- Tested to 66dB for acoustics
- Breathable, does not absorb moisture

Usage Purpose

FZ100 Fire Safe Zone is a fire compartment reinstatement solution for planned and future penetrating services. In the event of a fire, FZ100 will expand and reinstate the compartment line performance where it has been breached by service penetrations.

FZ100 may be located anywhere within a building element, either at the point of construction, or retrospectively fitted. This allows a designer to anticipate future fire sealing requirements, and to integrate FZ100 at strategic points within the building, where subsequent services may be located.

FZ100 product is placed centrally within the flexible wall cavity, allowing both high service movement, and an uninterrupted aesthetic appearance on all visible wall faces.

Alternatively, FZ100 can be installed horizontally in an opening or in a shaft into floor elements, such as concrete, AAC, CLT or modular steel frame constructions.

FZ100 is suited for use in modular application, where services may be located after the construction of the compartment.

Typical areas of use include: health and leisure facilities, schools, universities, modular construction, commercial buildings, hospitals, retail and industrial units, train stations, nuclear power plants, etc...

Packaging

Available sizes:

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FZ100 Slab/Sheet, Product Code: FZ100511224

Dimensions: Length 1000mm (-0/+20) x Width 620mm (-5/+65) x Thickness 50mm ($\pm 1,5$)

Supplied individually, 15 units per pallet box

FZ100 Stripe on a roll, Product code: FZ100511183

Dimensions: Length: 3000 mm (-0/+20) x Width 100 mm (-5/+15) x Thickness 50 mm ($\pm 1,5$)

18 units per pallet box.

FZ100 Identification tape, Product Code: FZ100510358

66 m on a roll

Available Colour

Black

Certificates & Approvals

ETA 24/0125

UL-EU-01263-CPR

CE 2821-CPR-0293

Technical Characteristics

Dimensions		Length: 1000 mm (-0/+20) Width: 620 mm (-5/+65) Thickness: 50 mm ($\pm 1,5$)
Composition		Graphite impregnated polyurethane foam
Acoustic Rating	EN ISO 10140:2-2010	Up to 66 dB
Density		127 kg/m ³ (± 20)
Durability	EN 13162, EN 14303, EN ISO 1519	Type X: intended for use at conditions exposed to weathering (also covers types Y1, Y2, Z1, Z2)
Thermal Conductivity	EN 6946	0.08 W/(m.K)
Service Temperature		-40°C to +90°C

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Environmental Performance	LEED EMICODE EC1+ Eurofins Indoor Air Comfort GOLD
Storage	Store in dry shaded conditions between -10°C and +70°C.
Shelf Life	Unlimited when stored as recommended.

Usage Guidelines

Always read SDS, technical handbook, available reports and relevant application details prior to application. Ensure the latest documents are downloaded prior to every project commencement.

Substrate Preparation

All surfaces must be clean and sound, free from dirt, grease and other contamination.

Necessary Tools

Tape measure
Suitable cutting equipment
Drill and associated drill bits

Preparation

Ensure all services passing through the compartment penetration are suitable for use with FZ100 and have been installed to the satisfaction of all relevant parties (we recommend checking TDS's as supplied by the manufacturer of the service for all other considerations).

Application

Wall Installation

FZ100 is typically installed during the drywall construction phase. One side of the partition may be fully constructed prior to the application of FZ100.

FZ100 should be compressed between two vertical studs, at the expected service locations (e.g. above door head). Services must be supported as required. Alternatively, it can be installed locally but it must be fully restrained as previously described. Close the partition wall with the required plasterboard system to manufacturer's tested recommendations. Externally identify the "Fire Safe Zone" infilled perimeter area using Nullifire FZ100 identification tape.

Services Installation

In the required locations, and within the FZ100 perimeter identification, mark out and identify your service requirements (ensuring to avoid stud locations), and locally remove areas of plasterboard as necessary for the service size. Plasterboard openings are required to be either the same dimensions as the services, or larger to all sides of the service

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dimensions (building conditions may require the increased opening size, e.g. building movement tolerances).

Consult construction details within technical handbook for permitted tolerances.

For square or rectangular services, drill directly through the partition at the 4 corners in the required service location.

Plasterboard can now be cut to each side individually without removing FZ100 infill.

For circular services, drill a pilot hole directly through the partition at the centre of the required service location.

Using a suitable core drill bit, plasterboard can now be cut to each side individually without removing FZ100 infill.

Once FZ100 is revealed by the local removal of plasterboard, cross cut or Horseshoe cut the FZ100 using a suitable cutting knife, creating 4 slits from the centre of the opening to the corners of the opening (rectangular type aperture), or at centre point to perimeter at 90° (circular type aperture).

PLEASE NOTE: Cable tray openings in FZ100, such openings should be cut in order to permit the lifted element of FZ100 to return to the cables, larger cables may require a vertical slit in the FZ100 to allow return to the tray and seal to the cable.

Once cut, push back FZ100 within cavity space to reveal your required opening.

Pass the required service through the now revealed opening.

FZ100 will over time form its original shape around the service.

A cold smoke seal will be required on both sides of partition; we recommend the use of Nullifire FS702 Intumastic (read FS702 TDS for limitations).

Floor Installation

When FZ100 is used in a floor, all services are usually installed first and a smoke seal is created using Nullifire FS702.

Afterwards, the installation of FZ100 can be either done using FZ100 slabs cut to size or by using FZ100 strips of 100mm width.

Installation process step by step:

- An opening is generated in the floor that allows several services to pass through.
 - A fire board is fixed either inside or 80mm overlapping underneath the opening.
 - The fire board is drilled, cut in a way that services can pass through an annular gap or joint not bigger than 10mm.
 - The joints between the fire board and the services are cold smoke sealed with Nullifire FS702.
 - FZ100 is installed slightly compressed to the edges of the opening and around the services.
- All FZ100 should remain in the opening and will therefore be compressed around all services. Wherever holes, gaps, etc. are created around services these should be closed by using spare FZ100 pieces with a compression of around 20mm. For non-combustible services materials the compression can be lower.
- Depending on the required fire performance one or two layers of 50mm thick FZ100 foam will be necessary.

Protective Equipment

Ensure all recommended protective equipment is worn during handling & use of this product. For full recommendation, refer to safety data sheet.

Please Note

A cold smoke seal must also accommodate the required building movement or service product thermal expansion.

FZ100 does not absorb moisture; however, it should not be installed unless dry.

For retrofitted installation, it will be required to remove a local area of plasterboard revealing the left & right studs. Rock fibre/mineral wool insulation infill (min. 100 kg/m³) will be required to be removed to accommodate the FZ100 installation in the

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cavity.

If the partition wall is uninsulated (or insulated with any other material than rock fibre/mineral wool min 100 kg/m³), a steel frame must be provided to all sides of the FZ100 product (vertical stud being considered as steel framing).

Vertical C-channels / studs may not be removed to accommodate the FZ100 installation.

Minimum dimension of FZ100 should be 50mm larger to all sides than the anticipated area of the service penetration(s).

Minimum 100mm plasterboard separations will be required between service openings.

Maximum dimension of FZ100 is limited only by the size of the partition.

Services were tested with the first support at 250mm from partition face.

If stored below 0°C, the product must be placed in a +5°C and rising area for a minimum of 12 hours prior to application (this is to ensure the product does not contain moisture).

The achievable fire resistance duration and installation situations are provided in the a separate, downloadable document (FZ100 Technical Handbook).

Maintenance

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

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.

It is a requirement of the installer to ensure suitability and compatibility of all elements before installation commences and that compliance can be achieved as required.

Health And 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 01942 251400

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Certification

