

# Passive Fire Protection

for construction movement joints, gaps and service penetrations



**FIRE STOPPING** COMPLIANT FIRE STOPPING SOLUTIONS. FOR TOTAL PEACE OF MIND.

**Nullifire**<sup>®</sup>

# Introducing Nullifire

## Better passive protection from fire

No one knows more than Nullifire about fire protection in buildings.

We have been pioneering intumescent technology and passive fire protection solutions for over 35 years, with an unchanging central focus: **to save lives, protect property and minimise business losses.**

Today, Nullifire is recognised as one of Europe's leading developers and manufacturers of intumescent fire protective coatings, and is seen as an authority in this specialist field. We have led the industry in the development of new technologies, such as waterborne thin film systems, with a constant focus on providing easy to use, safe, eco-conscious products.

### Part of Tremco illbruck Group

The Tremco illbruck Group is focused on providing product solutions for the protection of buildings. We are a leading provider of sealing, weatherproofing and fire protection solutions to construction professionals across Europe.

Our application expertise is backed by many thousands of proprietary products under strong premium brands such as Tremco, illbruck and Nullifire, which stand for innovative, reliable products and unrivalled services

Nullifire is a core brand within the Tremco illbruck Group, which is totally focussed on passive fire protection solutions.

### Comprehensive Fire Stopping range

Alongside our market leading Intumescent coatings for the protection of steel structures and timber, Nullifire offers a comprehensive range of fire stopping products, providing passive fire protection solutions to construction movement joints, gaps and service penetrations.

These products have been fully tested and approved to the latest European Standards, providing some of the highest levels of product certification. Installing Nullifire products will provide a system that is not only fit for purpose today, but will meet changing legislation in the future.

### For every application

We can provide a system solution you can trust, and the most complete service expertise to assist where required.

In this brochure, you will find all the essential information about each Nullifire fire stopping product: its typical applications, key properties and performance data, certifications and installation guidance.

Selection assistance may be found via the Product Selector (pages 6-7). For specific queries and additional advice, see the contact details on the back cover.





# Contents

**Introducing Nullifire** 2-3

**Contents** 4

**Product selector** 6-7

## **SECTION ONE** **NON LOAD-BEARING** **BARRIER PENETRATION** **SEALING**

**B747-50 (FB747)** 10-12

Coated mineral fibre batt system,  
for large multiple service penetrations

**B747-60 (FB747)** 13-15

Coated mineral fibre batt system,  
for large multiple service penetrations

**B760 (FB760)** 16-17

Flexible intumescent seal bags,  
for temporary and permanent multiple  
service penetrations

**B805/B810 (FB805/FB810)** 18-19

Lightweight flexible fire curtain,  
for large unsupported openings

## **SECTION TWO** **LOAD-BEARING BARRIER** **PENETRATION SEALING**

**B220 (FR220)** 22-23

Fast-curing structural compound,  
for multiple service penetrations

**B270 (FR270)** 24-25

Fast-curing high strength structural  
compound, for multiple service  
penetrations

## **SECTION THREE** **LINEAR MOVEMENT AND** **BUILDING GAP SEALS**

**M701 (FS701)** 28-30

Flexible acrylic gap and joint sealant,  
for rigid or low movement joints

**M703 (FS703)** 31-33

Flexible moisture resistant silicone gap  
and joint sealant, for medium to high  
movement joints

**FS700** 34-36

Dynamic movement joint sealant,  
provides flexible dynamic seal at  
positions where a high degree of  
building movement is expected

**FF177** 38-39

Hand held PU foam gap filler, seals  
gaps and joints up to 30mm

**FF197** 40-41

Gun grade PU foam gap filler, seals  
gaps and joints up to 30mm

**J2000 (FJ200)** 42-43

Linear expansion joint seal (High Density),  
for linear movement joints up to 150mm,  
accommodates 50% movement

**J3000 (FJ300)** 44-45

Linear expansion joint seal (Low Density),  
for linear movement joints up to 150mm,  
accommodates 50% movement

## **SECTION FOUR** **PIPE AND PENETRATION** **CLOSING**

**B150 (FP150)** 48-49

Surface mounted pipe collar, closes off  
plastic pipes up to 200mm in diameter

**B300 (FP300)** 50-51

Recessed pipe wrap, closes off plastic  
pipes up to 200mm in diameter

**B600 (FP600)** 52-54

Recessed pipe sleeve, closes off plastic  
pipes up to 200mm in diameter, in light  
weight and mineral fibre substrates

**M705 (FS705)** 56-57

Intumescent mastic, seals gaps around  
metallic penetration, and closes off  
plastic pipe up to 85mm in diameter

**FO100** 58-59

Electrical box putty pads, reinstates fire  
and acoustic integrity of metallic, plastic  
electrical and multi-media sock boxes

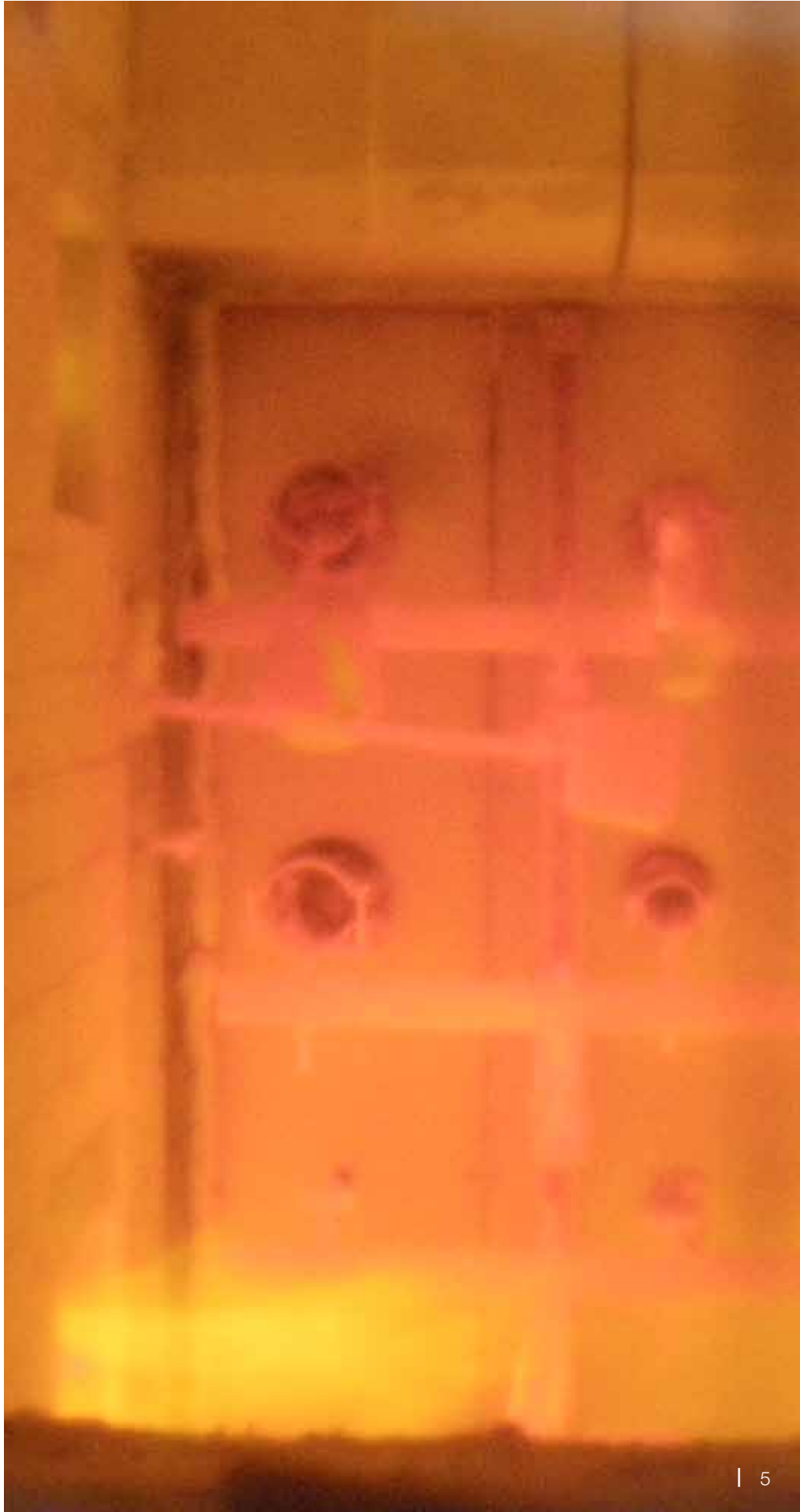
## **SECTION FIVE** **SEALANTS AND COATINGS**

**FS711** 62-63

Trowel grade acrylic mastic, coatback  
around penetrating services and sealing  
of joints

**FS721** 62-63

Spray grade acrylic mastic, coating  
for mineral fibre boards/coatings  
around services



# Product selector

This selector gives you an at-a-glance overview of the complete Nullifire Firestopping range. Before referring to more detailed information about each product, use the selector to:

- Review and compare products and their specific functions
- Find suitable products for specific applications
- Check for compliance with principal approvals/certifications

PRODUCT NAME	NEW PRODUCT NAME	DESCRIPTION
<b>PENETRATION SEALING – NON LOAD-BEARING BARRIERS</b>		
<b>B747-50</b>	<b>FB747</b>	Coated mineral fibre batt fire stop system – 4-hour. For large multiple-service penetrations
<b>B747-60</b>	<b>FB747</b>	Coated mineral fibre batt fire stop system – 2-hour. For large multiple-service penetrations
<b>B760</b>	<b>FB760</b>	Intumescent seal bags. For large multiple-service penetrations, temporary and permanent
<b>B805</b>	<b>FB805</b>	Lightweight, flexible fire curtain – 30-minute. For large unsupported openings
<b>B810</b>	<b>FB810</b>	Lightweight, flexible fire curtain – 2-hour. For large unsupported openings
<b>PENETRATION SEALING – LOAD-BEARING BARRIERS</b>		
<b>B220</b>	<b>FR220</b>	Fast-curing load-bearing fire stop compound. For multiple-service penetrations
<b>B270</b>	<b>FR270</b>	Fast-curing load-bearing fire stop compound – high strength. For multiple-service penetrations
<b>LINEAR MOVEMENT AND BUILDING GAP SEALS</b>		
<b>M701</b>	<b>FS701</b>	Fire-resistant acrylic sealant – with air permeability and acoustic performance. For rigid or low movement joints – up to 20%
<b>M703</b>	<b>FS703</b>	Fire-resistant alkoxy elastomeric sealant – with air permeability and acoustic performance. For medium-to-high movement joints – up to 50%
<b>FS700</b>	<b>FS700</b>	Flexible fire-resistant acrylic sealant. For dynamic, high movement joints – up to 50%
<b>FF177</b>	<b>FF177</b>	Fire-rated PU foam gap filler – hand held. For joints and gaps up to 30mm
<b>FF197</b>	<b>FF197</b>	Fire-rated PU foam gap filler – gun grade. For joints and gaps up to 30mm
<b>J2000</b>	<b>FJ200</b>	Water-resistant, flexible, intumescent gap seal – high density compressible strip. For building movement joints – up to 50%
<b>J3000</b>	<b>FJ300</b>	Water-resistant, flexible, intumescent gap seal – low density compressible strip. For building movement joints – up to 50%
<b>PIPE AND PENETRATION CLOSING</b>		
<b>B150</b>	<b>FP150</b>	Surface-mounted, galvanised steel, intumescent pipe collar. For plastic pipe penetrations
<b>B300</b>	<b>FP300</b>	Self-adhesive intumescent pipe wrap. For plastic pipe penetrations
<b>B600</b>	<b>FP600</b>	Insulated intumescent pipe sleeve. For metal and plastic pipe penetrations
<b>M705</b>	<b>FS705</b>	Graphite-based intumescent sealant. For non-metallic penetrations
<b>FO100</b>	<b>FO100</b>	Non-setting, silicone-based intumescent putty pad. For single/double metal and plastic socket boxes
<b>SEALANTS AND COATINGS</b>		
<b>FS711</b>	<b>FS711</b>	Fire-resistant acrylic sealant – spray grade. For coating mineral fibre board and around services
<b>FS721</b>	<b>FS721</b>	Fire-resistant acrylic sealant – trowel-applied/coatback. For coating around penetrating services and joint sealing

	FIRE RATING (UP TO)	Linear joint	Blank seal	Cables/tray	Electrical trunking	Ducting/dampers	Metallic pipes	Plastic pipes	Electrical sockets	Fire BS 476	Fire EN 1366	Acoustic BS EN ISO 140-3	Air permeability EN 1026	Load-bearing capacity	Movement capability (up to)	Water resistance	Page No.
		APPLICATION								CERTIFICATION				ADDITIONAL PROPERTIES			
	4 hours		•	•	•	•	•	•		•		•					10-12
	2 hours		•	•	•	•	•				•	•					13-15
	4 hours		•	•	•	•	•	•		•	•						16-17
	30 mins		•	•	•		•			•							18-19
	2 hours		•	•	•		•			•							22-23
	4 hours		•	•	•	•	•	•		•	•	•	•	•			24-25
	4 hours		•	•	•	•	•	•		•	•	•	•	•			26
	5 hours	•	•	•	•	•	•			•	•	•	•		20%		28-30
	5 hours	•	•			•	•			•	•	•	•		50%	•	31-33
	3 hours	•	•								•	•	•		50%	•	34-36
	4 hours	•								•	•	•	•				38-39
	4 hours	•								•	•	•	•				40-41
	4 hours	•								•	•	•	•		50%	•	42-43
	2 hours	•								•					50%	•	44-45
	4 hours							•		•	•						48-49
	4 hours							•		•	•						50-51
	2 hours			•			•	•		•	•	•					52-54
	2 hours			•			•	•			•	•					56-57
	2 hours			•					•	•	•	•					58-59
	4 hours	•	•		•	•	•			•	•	•	•		20%		62-63
	4 hours	•	•		•	•	•			•	•	•	•		20%		62-63







## SECTION ONE

### NON LOAD-BEARING BARRIER PENETRATION SEALING

Systems for fire sealing of temporary and permanent multiple-service openings and gaps in walls and floors, to reinstate the integrity of compartment.



# Fire stop coated batt system

## COATED BATT

# B747-50

### FOR MULTIPLE-SERVICE PENETRATIONS

Nullifire B747-50 is a lightweight **4 hour** fire barrier comprising of a mineral fibre board coated with an elastomeric, ablative water based sealant. In the event of a fire, B747 prevents the passage of fire and smoke by re-instating the compartment floor or wall when penetrated by building services. This system also provides thermal, acoustic and air sealing performance.

#### Key features

- Up to 4 hour fire resistance
- Easy, fast installation
- No coat back required
- Excellent adhesion eliminates delaminating
- Suitable for walls and floors
- Resistant to mould, fungus and vermin attack
- Can be used in large unsupported openings

## Product overview

### Typical applications

- Health and leisure centres
- Schools, universities and other educational buildings
- Hospitals
- Industrial, power generation plants

### Permissible services

- Single and bunched cables
- Cable trays
- Cable ladders
- Trunking
- Blank openings
- Ducting/dampers
- Metallic pipes
- Plastic pipes

### Typical substrates

- Masonry wall
- Drywall
- Masonry floor

### Testing and certification

#### Fire performance

- Tested in accordance with BS 476-Pt20
- Up to 4 hours fire resistance

#### Acoustic performance

- Tested in accordance with EN ISO 140-3

### Technical support

Please refer to our MSDS and technical application data sheets for further details. For guidance on applications outside this scope, contact our technical department.

## Specification

Coating	White ablative
Size	1.2m x 0.6m
Thickness	50mm
Density	140kg/m <sup>3</sup>
Maximum tested aperture	Horizontal 0.72m <sup>2</sup> Vertical 4.15m <sup>2</sup>

For seals larger than the above please contact Nullifire for technical assistance



## Installation guidance

### Preparation

Clean all surfaces of loose particles, moisture, oils, grease and corrosive materials.

### Installation

1. Cut the board to required size, using a saw.
2. Apply Nullifire M701 or FS721 Acrylic Sealant to all uncoated edges
3. Align and locate the board within the opening, ensuring a tight friction fit
4. Apply M701 or FS721 sealant to all uncoated areas before friction fitting board. Fill all gaps with M701

### Maintenance

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

### Tools required

- Suitable skeleton/sausage gun, 310ml/600ml
- Suitable sharp saw and spatula

## Fire performance

Service type	B747-50 single layer		B747-50 double layer	
	Integrity (mins)	Insulation (mins)	Integrity (mins)	Insulation (mins)
<b>Wall</b>	<b>Masonry wall/plaster board partition</b>			
Cable ladder 340mm x 100mm	120	60	120	60
Cables up to 26mm diameter	120	N/A	120	60
Steel pipes up to 60mm	120	30	120	30
PVC pipes up to 110mm diameter*	60	N/A	60	N/A
Steel ducts/dampers 445mm x 445mm	120	120	120	120
<b>Wall</b>	<b>Masonry wall</b>			
Cable ladder 340mm x 100mm	240	N/A	240	60
Cables up to 20mm diameter	240	N/A	240	60
Blank openings	240	120	240	120
<b>Floor</b>	<b>Masonry floor</b>			
Cable ladder 340mm x 100mm	N/A	N/A	120	60
Cables up to 20mm diameter	N/A	N/A	120	60

\*Plastic pipes to be fitted with suitable Nullifire Intumescent product i.e. B600/B300/B150

## Product range

Product	Description	Colour	Nominal Size (mm)	Item No.
B747-50	Coated Batt System	White	1200x600x50	350632

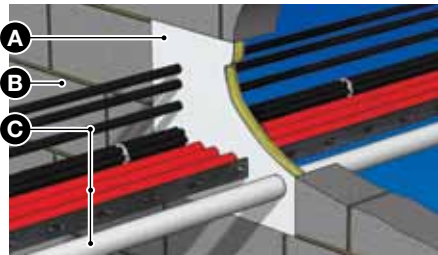
## Associated products

Product	Description	Page No.
M701	Acrylic FR Sealant	28
FS721	Acrylic FR Trowel Grade Coat Back	62
B600	Intumescent Pipe Sleeve	52
B300	Intumescent Pipe Wrap	50
B150	Intumescent Pipe Collar	48

# Fire stop coated batt system

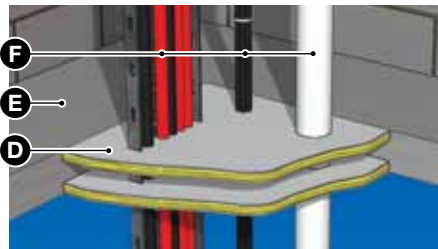
## Application types

### Wall – Vertical single Batt multiple penetrations



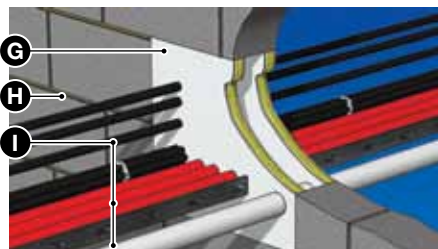
- A** B747-50 Coated Batt
- B** Masonry/Partition wall
- C** Multiple services

### Floor slab – Horizontal double Batt multiple penetrations



- D** B747-50 Coated Batt
- E** Floor slab
- F** Multiple services

### Wall – Vertical double Batt multiple penetrations



- G** B747-50 Coated Batt
- H** Masonry/Partition wall
- I** Multiple services

# Fire stop coated batt system

## COATED BATT

# B747-60

### FOR MULTIPLE-SERVICE PENETRATIONS

Nullfire B747-60 is a lightweight **2 hour** fire barrier comprising of a mineral fibre board coated with an elastomeric, ablative water based sealant. In the event of a fire, B747 prevents the passage of fire, and smoke by re-instating the compartment floor or wall when penetrated by building services. This system also provides thermal, acoustic and air sealing performance.

#### Key features

- Up to 2 hours fire resistance
- Easy, fast installation
- No coat back required
- Excellent adhesion eliminates delaminating
- Suitable for walls and floors
- Resistant to mould, fungus and vermin attack
- Can be used in large unsupported openings

## Product overview

### Typical applications

- Health and leisure centres
- Schools, universities and other educational buildings
- Hospitals
- Industrial, power generation plants

### Permissible services

- Single and bunched cables
- Cable trays
- Cable ladders
- Trunking
- Blank openings
- Ducting/dampers
- Metallic pipes
- Plastic pipes

### Typical substrates

- Masonry wall
- Drywall
- Masonry floor
- Timber floor

### Testing and certification

#### Fire performance

- Tested in accordance with EN 1366-3
- Up to 2 hours fire resistance

#### Acoustic performance

- Tested in accordance with EN ISO 140-3

### Technical support

Please refer to our MSDS and technical application data sheets for further details. For guidance on applications outside this scope, contact our technical department.

## Specification

Coating	White ablative
Size	1.2m x 0.6m
Thickness	60mm
Density	160kg/m <sup>3</sup>
Maximum tested aperture	Horizontal 3.9m <sup>2</sup> Vertical 2.5m <sup>2</sup>

For seals larger than the above please contact Nullfire for technical assistance



# Fire stop coated batt system

## Installation guidance

### Preparation

Clean all surfaces of loose particles, moisture, oils, grease and corrosive materials.

### Installation

1. Cut the board to required size, using a saw
2. Apply Nullifire M701 or FS721 Acrylic Sealant to all uncoated edges
3. Align and locate the board within the opening, ensuring a tight friction fit
4. Apply M701 or FS721 sealant to all gaps and uncoated areas

### Maintenance

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

### Tools required

- Suitable skeleton/sausage gun, 310ml/600ml
- Suitable sharp saw and spatula

## Fire performance

Service type	B747-60 single layer		B747-60 double layer	
	Integrity (mins)	Insulation (mins)	Integrity (mins)	Insulation (mins)
<b>Wall</b>	<b>Masonry wall/plasterboard partition</b>			
Blank seal	60	60	120	120
Cable ladder	60*	60*	120	90
<b>Specific cables:</b>				
H07RN-F4 x 185mm <sup>2</sup> up to 80mm	60*	60*	120*	120*
H07RN-F4 x 10mm <sup>2</sup> up to 26.5mm	60*	60*	120*	120*
H07RN-F5 x 1.5mm <sup>2</sup> up to 14.4mm	60*	60*	120*	120*
Telecom cables bunched 18mm	60*	60*	120*	120*
H07G-K 1 x 185mm <sup>2</sup> up to 26.3mm	60*	60*	120*	120*
Steel ducts/dampers (445mm x 445mm)	60**	60**	120**	120**
<b>Floor</b>	<b>Timber floor/masonry floor</b>			
Blank seal	60	60	N/A	N/A
Cable ladder insulated	60**	60**	N/A	N/A
Cable ladder	60	N/A	N/A	N/A
Cables up to 80mm	60	N/A	N/A	N/A
Cables insulated up to 80mm	60**	60**	N/A	N/A
Steel pipes up to 220mm	60**	60**	N/A	N/A

\*150mm Coatback required \*\*Rocklap insulation required

## Product range

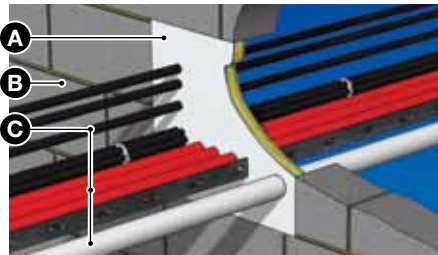
Product	Description	Colour	Nominal Size (mm)	Item No.
B747-60	Coated Batt System	White	1200x600x60	350638

## Associated products

Product	Description	Page No.
M701	Acrylic FR Sealant	28
FS711	Spray Grade Acrylic Sealant	62
FS721	Acrylic FR Trowel Grade Coat Back	62
B600	Intumescent Pipe Sleeve	52
B300	Intumescent Pipe Wrap	50

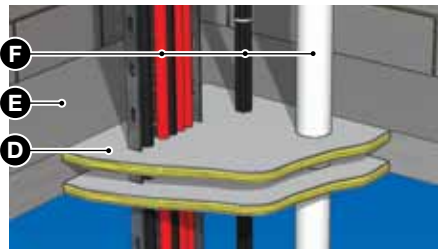
## Application types

### Wall – Vertical single Batt multiple penetrations



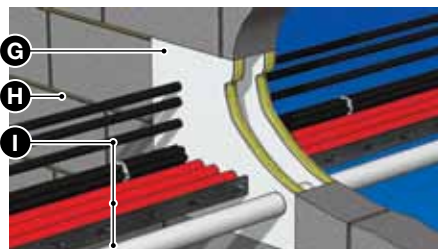
- A** B747-60 Coated Batt
- B** Masonry/Partition wall
- C** Multiple services

### Floor slab – Horizontal double Batt multiple penetrations



- D** B747-60 Coated Batt
- E** Floor slab
- F** Multiple services

### Wall – Vertical double Batt multiple penetrations



- G** B747-60 Coated Batt
- H** Masonry/Partition wall
- I** Multiple services

# Fire stop intumescent seal bags

## SEAL BAGS

# B760

### FOR TEMPORARY/ PERMANENT MULTIPLE SERVICE PENETRATIONS

Nullfire B760 is an intumescent based composite material, encased within a durable, water resistant, coated fabric bag. B760 is dry installed to provide a temporary or permanent fire resistant barrier. In the event of a fire, B760 prevents the passage of fire and smoke by closing off the aperture within the compartment floor or wall when penetrated by building services.

#### Key features

- Up to 4 hours fire resistance
- Suitable for temporary or permanent application
- Dust and fibre free
- Water resistant and durable
- Easily re-penetrated for addition of services
- Dry installation
- Suitable for floors and walls
- Ready to use and easy to install
- High performance expansion rate
- No mechanical fixing required

## Product overview

### Typical applications

- Wall and floor multiple service penetrations
- Telecommunication applications
- Temporary or permanent applications
- Zero fibre migration situations
- Internal and external to cable trunking/ducting

### Joint substrates

- Masonry floor/wall
- Permissible services
- Metallic and plastic pipes
- Cable trays
- Cable ladders
- Single and bunched cables
- Dampers and duct work\*

\*Contact Nullfire for fixing details

## Testing and certification

### Fire performance

- Tested in accordance with BS 476-Pt20
- Up to 4 hours fire resistance
- Tested in accordance with EN1366-3
- Classification EN13501

### Technical support

Please refer to our MSDS and technical application data sheets for further details. For guidance on applications outside this scope, contact our technical department.



## Specification

Product reference	Nominal size (mm)	Weight (gr)
B760	330 x 200 x 45	385g
B761	330 x 200 x 25	185g
B762	330 x 50 x 20	50g

## Consumption to BS476

Substrate (area m <sup>2</sup> )	Fire resistance (bags required)	Large Bags (bags required)	Small Bags (bags required)
Wall	240	83	166
Floor	240	60	120

Minimum depth of B760 on floors of 150mm





## Installation guidance

### Preparation

- Check depth of floor/wall against required fire rating
- Ensure correct size and quantity of Seal Bags
- Check all services are independently supported
- Remove all loose debris and waste material from the faces of the opening.
- Fill trunking with finger bags and re-secure lids prior to installation

### Installation

1. Shake bags to ensure a good even distribution of infill material
2. Starting at the bottom of the wall build up the bags in a uniform brick bonding style. Use small bags where necessary to fill around services
3. Compact bags as work proceeds. Use a nominal 83 B760 bags per m<sup>2</sup> of opening
4. Ensure the barrier is fully compacted prior to fitting the last B760 Seal Bag. Use small or large bags as necessary to completely fill the opening

### Maintenance

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

### Tools required

- Suitable PPE

## Fire performance

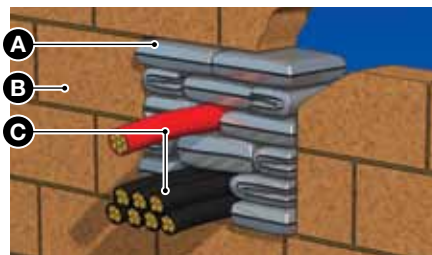
Opening size	Penetration type	Integrity (mins)	Insulation (mins)
<b>Wall</b>			
1000x1000mm	Cable tray with cables	240	120
	Blank	240	120
<b>Floor</b>			
1000x1000mm	Cable tray with cables	240	120
	Blank	240	120

## Product range

Product	Description	Colour	Size (mm)	Box Qty.	Item No.
B760	Intumescent Seal Bags	Grey	330 x 200 x 45	25	351901
B761	Intumescent Seal Bags	Grey	330 x 200 x 25	50	351903
B762	Intumescent Seal Bags	Grey	330 x 50 x 20	50	351902

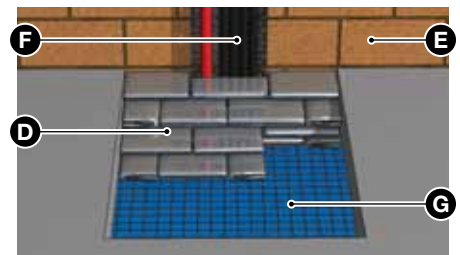
## Application types

### Masonry wall – Vertical seal bags, multiple penetrations



- A** B760 Seal Bags
- B** Masonry wall
- C** Multiple services

### Masonry wall – Horizontal seal bags, multiple penetrations



- D** B760 Seal Bags
- E** Masonry wall
- F** Multiple services
- G** Steel mesh

# Fire stop flexible fire curtain

## FIRE CURTAIN

# B805 B810

### FOR ALL BUILDING AND CONSTRUCTION JOINTS

Nullifire B805/810 Fire Curtain is a specially coated, woven glass fibre blanket. B805/810 can provide up to 2 hours fire and smoke protection to large unsupported openings.

B805:

Provides up to 30 minutes fire protection

B810:

Provides up to 120 minutes fire protection

### Key features

- Up to 2 hours fire resistance
- Smoke and cavity fire barrier
- Approval with service penetrations
- Suitable for large openings up to 10.8m
- Dry installation
- Resistant to mould fungus and vermin attack

## Product overview

### Typical applications

- Subdividing ceiling
- Subdividing roof
- Partitioning the void below a raised floor

### Permissible services

- Single bunched cables
- Cable trays
- Cable ladders
- Trunking
- Metallic and plastic pipes
- Ducting
- Steel/timber structural sections

### Testing and certification

#### Fire performance

- Tested in accordance with BS 476-Pt20
- Up to 2 hours fire resistance

### Preparation

- Ensure solid substrate and timber truss, to provide fixing for all four sides
- Ensure correct curtain selected for drop required

### Technical support

Please refer to our MSDS and technical application data sheets for further details. For guidance on applications outside this scope, contact our technical department.



## Specification

Nominal Size	1000mm x 50m
Colour	B805: White B810: Grey

## Installation guidance

### Preparation

- Ensure solid substrate and timber truss, to provide fixing for all four sides
- Ensure correct curtain selected for drop required

### Installation

1. Fold edge of curtain around mild steel framing angle
2. Loose fix top edge of curtain at 250mm centres to the underside of the soffit using anchor bolts and washers
3. Fix vertical seams at 60mm centres, 5mm away from the face of the curtain. Staple the vertical seams using zinc coated steel plates
4. Secure top perimeter framing angle, then side perimeter angles
5. Fold all 60mm overlaps in half to form a double overlap. Staple at 60mm centres, 15mm away from the face of the curtain, staggered 30mm from the first fix position

### Maintenance

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

### Tools required

- General hand tools
- Mild steel frame 40 x 50 x 0.8mm or equivalent
- M6 x 65mm diameter sleeve anchor bolts or equivalent

## Fire performance

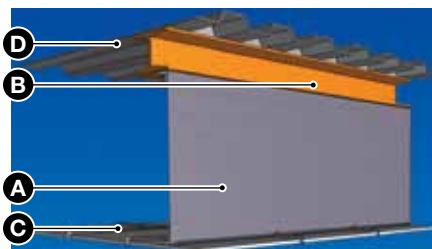
Product	Service type	Integrity (mins)	Insulation (mins)
B805	250mm steel duct	30	N/A
	112mm steel pipe	30	N/A
	50mm x 60mm steel trunking	30	N/A
	300mm cable tray	30	N/A
	Cables up to 35mm	30	N/A
B810	100mm PVC pipes	30	N/A
	115mm steel pipes	30	N/A
	150mm steel duct	30	N/A
	300mm cable tray	30	N/A
	Blank opening	120	N/A

## Product range

Product	Description	Colour	Nominal Size	Item No.
B805	30 minute Fire Curtain	White	1000mm x 50m	350630
B810	120 minute Fire Curtain	Grey	1000mm x 50m	350634

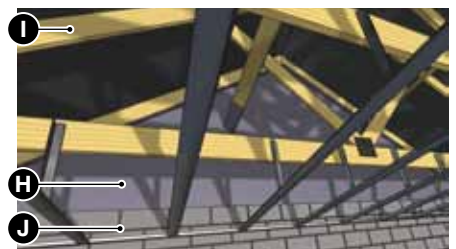
## Application types

### Steel structures



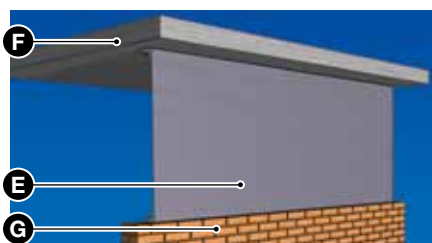
- A** B805/B810 Fire Curtain
- B** Steel beam
- C** Suspended ceiling
- D** Floor slab deck

### Timber structures



- H** B805/B810 Fire Curtain
- I** Timber roof truss
- J** Masonry wall

### Concrete/masonry structures



- E** B805/B810 Fire Curtain
- F** Concrete floor slab
- G** Masonry wall





## SECTION TWO

### LOAD-BEARING BARRIER PENETRATION SEALING

Systems for fire sealing multiple-service openings and gaps in load-bearing walls and floors, which reinstate the integrity of compartment.



# Fire stop fast curing structural compound

## FIRE STOP COMPOUND B220

### FOR LOAD-BEARING & NON LOAD-BEARING MULTIPLE-SERVICE PENETRATIONS

Nullifire B220 is a single part gypsum based compound providing up to 4 hours fire resistance. B220 is designed to re-instate the fire resistance of the compartment wall or floor, whilst providing an unsupported load-bearing capacity up to 2.5kN/m<sup>2</sup> (UDL), up to a 700mm span, in accordance with BS 6399-1:1996 minimum requirements. This system also provides thermal, acoustic and air sealing performance.

#### Key features

- Up to 4 hours fire resistance
- Up to 2.5kN/m<sup>2</sup> (UDL), unsupported
- Easy, fast installation
- Load-bearing seal up to 700mm effective span by any length
- Quick setting
- Zero shrinkage
- Easily re-penetrable
- Suitable for walls and floors
- Resistant to mould, fungus and vermin attack
- Offers effective support to dampers/ductwork



## Specification

Colour	Off white
Bag quantity	20kg dry
Density (wet cast)	1300-1400kg/m <sup>3</sup>
Load-bearing	2.5kN/m <sup>2</sup> UDL
Max. unsupported span	700mm
Flexural strength	1-3N/mm <sup>2</sup>
Compressive strength	5N/mm <sup>2</sup>
Thermal conductivity	0.2W/mk

For seals with a span greater than 700mm, please refer to B270 on page 24. For a seal that requires a UDL in excess of 2.5kN/m<sup>2</sup>, please refer to our technical services department for design support.

## Material requirement

Quantity of dry compound required (per m<sup>2</sup>)

Thickness of seal	50mm	75mm	100mm
Quantity (bags)	2	3	4

Excludes area of any penetrating services

## Mixing ratios

Compound to water ratio

Pourable grade	2:1
Trowel grade	3:1

## Product overview

### Typical applications

- Health and leisure centres
- Schools, universities and other educational buildings
- Hospitals
- Industrial, power generation plants

### Permissible services

- Single and bunched cables
- Cable trays
- Cable ladders
- Trunking
- Blank openings
- Ducting/dampers
- Metallic pipes
- Plastic pipes\*

\*With use of B300/B150/B600

### Typical substrates

- Masonry wall/floor
- Service risers

### Testing and certification

#### Fire performance

- Tested in accordance with EN 1366-3 and BS 476-Pt20
- Up to 4 hours fire resistance
- Classification EN 13501

#### Acoustic performance

- Tested in accordance with EN ISO 140-3

### Technical support

Please refer to our MSDS and technical application data sheets for further details. For guidance on applications outside this scope, contact our technical department.



## Installation guidance

### 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.

### Installation

1. Add water and mix to the required consistency
2. Transfer compound into the bucket
3. For ease of installation, divide larger openings into smaller manageable areas
4. Pour or trowel the compound into the opening in a single pour to the required depth

For load-bearing seals refer to Nullifire application data sheets.

### Maintenance

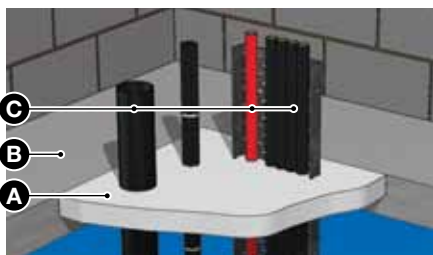
No maintenance required after installation. Routine inspection recommended to ensure no damage.

### Tools required

- Rubber gloves and eye protection
- Clean bucket, mixing paddle, trowel and water

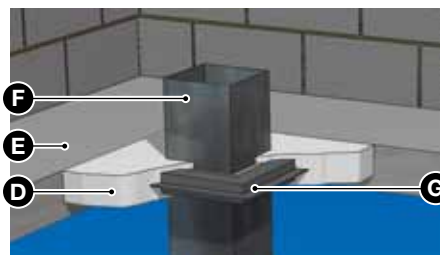
## Application types

### Horizontal – Multiple services



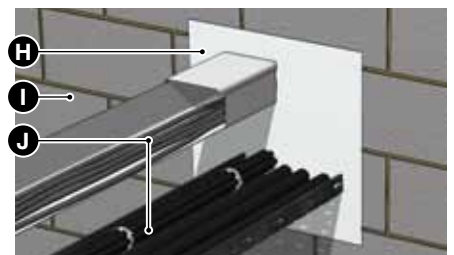
- A** B220 Compound
- B** Floor slab
- C** Multiple services

### Horizontal/vertical – HVAC duct and damper



- D** B220 Compound
- E** Floor slab
- F** Multiple services
- G** HVAC damper and expansion frame

### Vertical – Multiple services



- H** B220 Compound
- I** Masonry wall
- J** Multiple services

## Fire performance

Service type	Integrity (mins)	Insulation (mins)
<b>Wall/floor</b>	<b>Masonry max unsupported span 700mm</b>	
Blank seal	240	240
25mm steel pipe	240	240
42mm steel pipe	240	90
60.3mm steel pipe	240	30
108mm steel pipe	240	30
Cable tray 3 x 35mm cables	240	30
Cable tray 19 x 13mm and 1 x 55mm cables	60	30

## Product range

Product	Description	Colour	Diameter (mm)	Item No.
B220	Structural Firestop Compound	Off white	20kg	350620

## Associated products

Product	Description	Page No.
B150	Fire Stop Pipe Collar	48
B300	Fire Stop Pipe Wrap	50
B760	Fire Stop Seal Bags	16

# Fire stop high strength fast curing structural compound

## FIRE STOP COMPOUND

# B270

### FOR LOAD-BEARING & NON LOAD-BEARING MULTIPLE- SERVICE PENETRATIONS

Nullifire B270 is a single part gypsum based compound providing up to 4 hours fire resistance. B270 is designed to re-instate the fire resistance of the compartment wall or floor, whilst providing an unsupported load-bearing capacity up to 2.5kN/m<sup>2</sup> (UDL), up to a 1800mm span, in accordance with BS 6399-1:1996 minimum requirements. This system also provides thermal, acoustic and air sealing performance.

#### Key features

- Up to 4 hours fire resistance
- Up to 2.5kN/m<sup>2</sup> (UDL), unsupported
- Easy, fast installation
- Load-bearing seal up to 1800mm effective span by any length
- Quick setting
- Zero shrinkage
- Easily re-penetrable
- Suitable for walls and floors
- Resistant to mould, fungus and vermin attack
- Offers effective support to dampers/ductwork



## Specification

Colour	Off white
Bag quantity	20kg dry
Density (wet cast)	1750-1900kg/m <sup>3</sup>
Load-bearing	2.5kN/m <sup>2</sup> UDL
Max. unsupported span	1800mm
Flexural strength	5.2N/mm <sup>2</sup>
Compressive strength	17N/mm <sup>2</sup>
Thermal conductivity	0.2W/mk

For seals with a span greater than 1800mm, or UDL in excess of 2.5kN/m<sup>2</sup>, please refer to our technical services department for design support.

## Material requirement

Quantity of dry compound required (per m<sup>2</sup>)

Thickness of seal	50mm	75mm	100mm
Quantity (bags)	3	5	6

Excludes area of any penetrating services

## Mixing ratios

Compound to water ratio

Pourable grade	3:1
Trowel grade	4:1

## Product overview

### Typical applications

- Health and leisure centres
- Schools, universities and other educational buildings
- Hospitals
- Industrial, power generation plants

### Permissible services

- Single and bunched cables
- Cable trays
- Cable ladders
- Trunking
- Blank openings
- Unsupported multiple ducting/damper penetrations
- Metallic pipes
- Plastic pipes\*

\*With use of B300/B150/B600

### Typical substrates

- Masonry wall/floor
- Service risers

### Testing and certification

#### Fire performance

- Tested in accordance with PrEN 1366-3 and BS 476-Pt20
- Up to 4 hours fire resistance

#### Acoustic performance

- Tested in accordance with BS ISO 140-3

### Technical support

Please refer to our MSDS and technical application data sheets for further details. For guidance on applications outside this scope, contact our technical department.



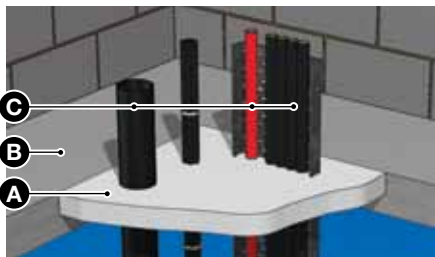


## Installation guidance

Refer to B220 page 22.

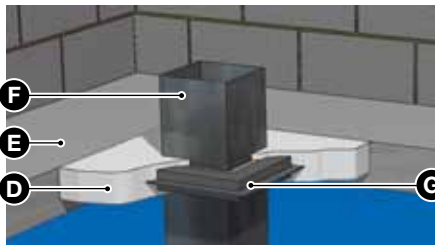
## Application types

### Horizontal – Multiple services



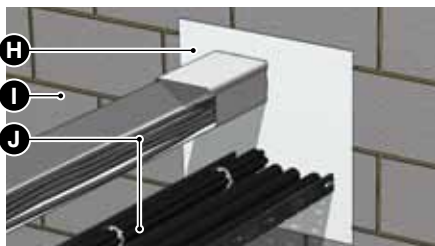
- A** B270 Compound
- B** Floor slab
- C** Multiple services

### Horizontal/vertical – HVAC duct and damper



- D** B270 Compound
- E** Floor slab
- F** Steel duct
- G** HVAC damper and expansion frame

### Vertical – Multiple services



- H** B270 Compound
- I** Masonry wall
- J** Multiple services

## Fire performance

Service type	Integrity (mins)	Insulation (mins)
<b>Masonry wall/floor</b>	<b>Maximum unsupported span 1800mm any length</b>	
Blank seal	240	240
25mm steel pipe	240	180
42mm steel pipe	240	90
60.3mm steel pipe	240	30
108mm steel pipe	240	30
Cable tray 3 x 35mm cables	240	30
Cable tray 19 x 13mm & 1 x 55mm cables	60	30
Multiple dampers 500mm x 400mm	240	240
Multiple dampers 600mm x 575mm	240	120

## Structural performance

Code of practice for dead and imposed loads in buildings provided by BS 6399-1:1996

Example of use	Uniformly distributed load (kN/m <sup>2</sup> )	Concentrated load (kN)
Work rooms (light industrial) without storage	<b>2.5</b>	<b>1.8</b>
Offices general use	2.5	2.7
Kitchens, laundries, laboratories	3	4.5
Mainframe computer rooms	3.5	4.5
Machinery halls	4	4.5
Factories, workshops (general industrial)	5	4.5

Nullifire B270 High Strength Structural Grade Compound, is capable of providing a structural seal to comply with 'Work Rooms (Light industrial traffic)' requirement, without the need for internal structural supports.

## Product range

Product	Description	Colour	Diameter (mm)	Item No.
B270	Structural Fire Stop Compound	Off white	20kg	350639

## Associated products

Product	Description	Page No.
B150	Fire Stop Pipe Collar	48
B300	Fire Stop Pipe Wrap	50
B760	Fire Stop Seal Bags	16

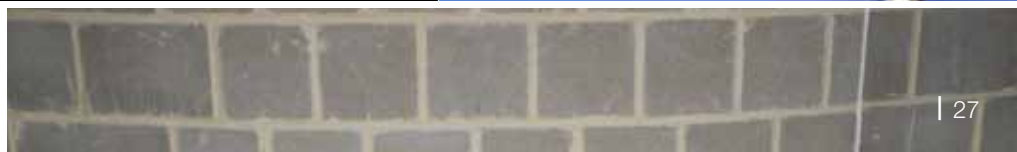




## SECTION THREE

### LINEAR MOVEMENT AND BUILDING GAP SEALS

Systems for reinstating the fire separation function where walls, or walls and floors, meet. These systems are designed to accommodate a specific degree of movement.



# Fire resistant acoustic air leakage acrylic sealant

## ACRYLIC SEALANT M701

### FOR ALL BUILDING AND CONSTRUCTION JOINTS

Nullifire M701 is a single-part water based fire resistant acrylic sealant. M701 provides up to 5 hours fire protection at building gaps and movement joints, whilst allowing up to 20% movement. It also provides fire protection around service penetrations. In addition, this product can ensure that the acoustic performance of the substrate is maintained. M701 has been fully tested to comply with the air leakage requirement of 'Approved Document L'.

#### Key features

- Up to 5 hours fire resistance
- Suitable for gaps up to 50mm wide
- No insulative backing material required for fire performance, PE backing rod for depth gauge only
- Maintains substrate acoustic rating
- Reduces air leakage
- Excellent tool ability and low slump characteristics, can be smoothed
- Width to depth ratio of 2:1
- Accommodates movement of up to 20%
- Over paintable with most water based and oil based top seals
- Low shrinkage
- Resistant to mould fungus and vermin attack

## Product overview

### Typical applications

- Expansion joints in compartment walls and floors
- Sealing in and around lightweight flexible partitioning
- Gaps between timber and steel doors and window frames and the substrate
- Decorative joints
- Sealing around service penetration, steel pipes, steel ducts, duct trays, cables and cable trays
- Used in conjunction with Nullifire B747 Coated Board System for large service penetrations

### Joint substrates

- Masonry to masonry
- Masonry to steel
- Steel to steel
- Masonry to timber (hardwood and softwood)
- Around pipes, services and cables
- In conjunction with Nullifire B747 Coated Board System

### Testing and certification

#### Fire performance

- Tested in accordance with EN 1366-4
- Up to 5 hours fire resistance
- Classification EN 13501

#### Acoustic performance

- Tested in accordance with EN ISO 140-3:1995.

#### Air permeability performance

- Tested in accordance with EN 1026

### Technical support

Please refer to our MSDS and technical application data sheets for further details. For guidance on applications outside this scope, contact our technical department.



## Properties

Solid content	82-85%
Ph value	8.8-10.0
Specific gravity	1.5 to 1.6g/cm <sup>3</sup>
Viscosity	Thixotropic
Tensile strength	1270kN/m <sup>2</sup>
Touch dry @ 20°C	30 mins
Cure through time @ 20°C	20 days
VOC	18.75g/ltr

## Installation guidance

### Preparation

- Clean all surfaces of loose particles, moisture, oils, grease and corrosive materials
- Abrade painted or shiny surfaces
- Check specification is suitable for movement, fire rating and gap size

### Installation

1. Install PE backing strip to required depth of seal
2. Cut nozzle of cartridge to suit bead size
3. Abrade surface if glossy or non-porous.
4. Extrude mastic using skeleton gun into dry dust free joint
5. Ensure contact is made with all surfaces
6. Seal ratio 2:1 (width/depth)

Refer to full application instruction for further details.

### Maintenance

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

### Tools required

- Suitable skeleton/sausage gun, 310ml/600ml
- Palette knife and spatula

## Fire performance

Substrate	Tested gap widths	Integrity (mins)	Insulation (mins)
<b>Wall (Double seal)</b>		<b>Seal depth ratio (width-depth) 2:1</b>	
Masonry – Masonry	up to 29mm	300	180
	30-50mm	300	300
Masonry – Softwood	up to 29mm	90	60
	30-49mm	90	90
	50mm	180	180
Masonry – Hardwood	up to 49mm	120	120
	50mm	180	180
Masonry – Steel	up to 12mm	300	60
	13-29mm	240	60
	50mm	300	120
<b>Floor (Single seal)</b>		<b>Seal depth ratio (width-depth) 2:1</b>	
Masonry – Masonry	up to 12mm	300	180
	13-50mm	300	60
Masonry – Steel	12-50mm	240	30

## Product range

Product	Description	Colour	Volume	Item No.
M701	Acrylic FR Sealant	White	310ml cartridge x 12	704312
M701	Acrylic FR Sealant	Grey	310ml cartridge x 12	704313
M701	Acrylic FR Sealant	White	600ml sausage x 12	704299
M701	Acrylic FR Sealant	Grey	600ml sausage x 12	704273
FS721	Acrylic FR Trowelable	White	5kg each	702472
FS721	Acrylic FR Trowelable	White	10kg each	702471

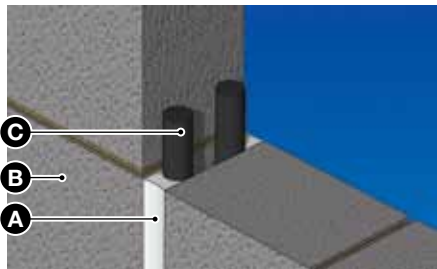
## Associated products

Product	Description	Page No.
Skeleton Gun	310mm Cartridge Dispenser	N/A
Skeleton Gun	600ml Sausage Dispenser	N/A
B747-50/60	Coated Board System	10-15
PE Backing Rod	Backing Rod for Material Depth Gauge	N/A

# Fire resistant acoustic air leakage acrylic sealant

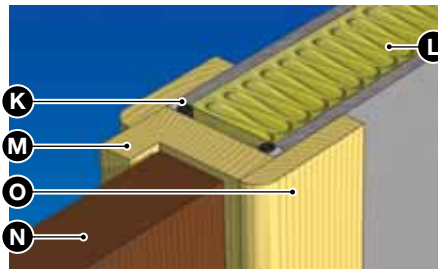
## Application types

### Vertical movement joint



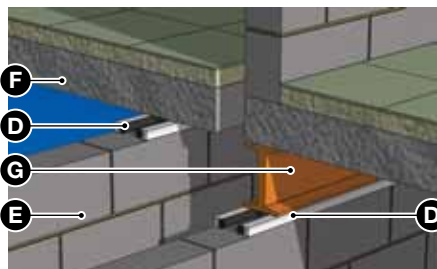
- A** M701 Acrylic Sealant
- B** Masonry wall
- C** PE backing spacer

### Door frame



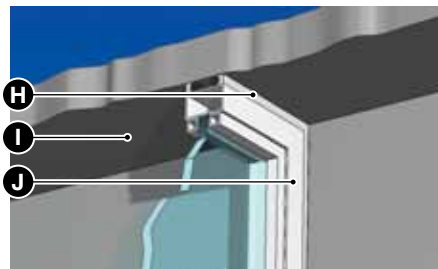
- K** M701 Acrylic Sealant
- L** Wall substrate
- M** Timber/steel door frame
- N** Door leaf
- O** Architrave

### Head of wall/horizontal movement joint



- D** M701 Acrylic Sealant
- E** Masonry wall
- F** Floor slab
- G** Steel beam

### Window frame



- H** M701 Acrylic Sealant
- I** Wall/soffit substrate
- J** Window frame

## M701 Coverage Rates

Gap Size	Bead Depth	Linear m per Tube
10mm	5mm	3.1
15mm	10mm	2.1
20mm	10mm	1.55
25mm	12mm	1.03
30mm	15mm	0.69
40mm	20mm	0.39
50mm	25mm	0.25

# Fire resistant acoustic air leakage silicone sealant

## SILICONE SEALANT M703

### FOR ALL BUILDING AND CONSTRUCTION JOINTS

Nullifire M703 is a single-part alkoxy-based fire resistant, elastomeric, neutral cure silicone sealant. M703 provides up to 5 hours fire protection at internal and external building gaps and movement joints. It allows up to 50% movement. It also provides fire protection around service penetrations. In addition, this product can ensure that the acoustic performance of the substrate is maintained. M703 has been fully tested to comply with the air leakage requirement of 'Approved Document L'.

#### Key features

- Up to 5 hours fire resistance
- Suitable for gaps up to 50mm wide
- No insulative backing material required for fire performance, PE backing rod for depth gauge only
- Excellent tool ability and low slump characteristics
- Width to depth ration of 2:1 (10mm wide 5mm deep)
- Accommodates movement up to 50%
- Weather and UV resistant
- Resistant to mould fungus and vermin attack
- Smoke, gas and hermetically air tight
- Can be used for external applications
- Water resistant

## Product overview

### Typical applications

- Expansion joints in compartment walls and floors
- Sealing in and around lightweight flexible partitioning
- Gaps between timber and steel doors and window frames and the substrate
- Decorative joints
- Sealing around service penetration, steel pipes, steel ducts, duct trays, cables and cable trays
- Used in conjunction with Nullifire B747 Coated Board System for large service penetrations
- Can be used for external joint applications

### Joint substrates

- Masonry to masonry
- Masonry to steel
- Steel to steel
- Masonry to timber (hardwood and softwood)
- Around pipes and services

### Testing and certification

#### Fire performance

- Tested in accordance with BS EN 1366-4
- Up to 5 hours fire resistance
- Classification EN 13501

#### Acoustic performance

- Tested in accordance with EN ISO 140-3

#### Air permeability performance

- Tested in accordance with EN 1026

### Technical support

Please refer to our MSDS and technical application data sheets for further details. For guidance on applications outside this scope, contact our technical department.

## Properties

Solid content	94-97%
Specific gravity	1.35g/cm <sup>3</sup>
Viscosity	Thixotropic
Tensile strength	285kN/m <sup>2</sup>
Touch dry @ 20°C	15 mins
Cure through time @ 20°C	20 days
VOC	54g/ltr



# Fire resistant acoustic air leakage silicone sealant

## Installation guidance

### Preparation

- Clean all surfaces of loose particles, moisture, oils, grease and corrosive materials
- Abrade painted or shiny surfaces
- Check specification is suitable for movement, fire rating and gap size

### Installation

1. Install PE backing strip to required depth of seal
2. Cut nozzle of cartridge to suit bead size
3. Abrade surface if glossy or non-porous
4. Extrude mastic using skeleton gun into dry dust free joint
5. Ensure contact is made with all surfaces
6. Seal ratio 2:1 (width/depth)

Refer to full application instruction for further details.

### Maintenance

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

### Tools required

- Suitable skeleton/sausage gun, 310ml/600ml
- Palette knife and spatula

## Fire performance

Substrate	Tested gap widths	Integrity (mins)	Insulation (mins)
<b>Wall (Double seal)</b>		<b>Seal depth ratio (width-depth) 2:1</b>	
Masonry – Masonry	up to 29mm	300	180
	30-50mm	300	300
Masonry – Softwood	up to 29mm	90	60
	30-49mm	90	90
	50mm	180	180
Masonry – Hardwood	up to 49mm	120	120
	50mm	180	180
Masonry – Steel	up to 12mm	300	60
	13-29mm	240	60
	50mm	300	120
<b>Floor (Single seal)</b>		<b>Seal depth ratio (width-depth) 2:1</b>	
Masonry – Masonry	up to 12mm	300	180
	13-50mm	300	60
Masonry – Steel	12-50mm	240	30

## Product range

Product	Description	Colour	Volume	Item No.
M703	Silicone Sealant	White	310ml cartridge x 12	351001
M703	Silicone Sealant	Grey	310ml cartridge x 12	351002
M703	Silicone Sealant	White	600ml sausage x 12	351019
M703	Silicone Sealant	Grey	600ml sausage x 12	351017

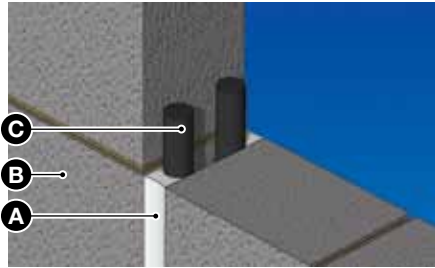
## Associated products

Product	Description
Skeleton Gun	310ml Cartridge dispenser
Skeleton Gun	600ml Sausage dispenser
PE Backing Rod	Backing Rod for Material Depth Gauge



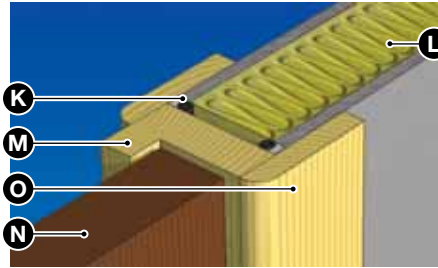
## Application types

### Vertical movement joint



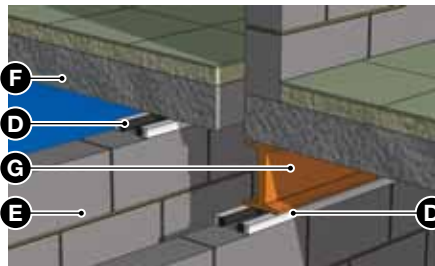
- A** M703 Silicone Sealant
- B** Masonry wall
- C** PE backing spacer

### Door frame



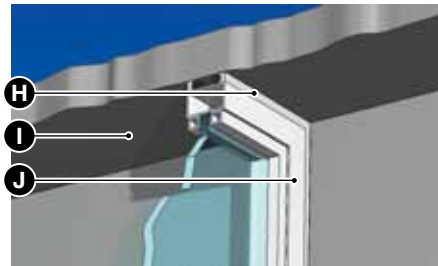
- K** M703 Silicone Sealant
- L** Wall substrate
- M** Timber/steel door frame
- N** Door leaf
- O** Architrave

### Head of wall/horizontal movement joint



- D** M703 Silicone Sealant
- E** Masonry wall
- F** Floor slab
- G** Steel beam

### Window frame



- H** M703 Silicone Sealant
- I** Wall/soffit substrate
- J** Window frame

## M703 Coverage Rates

Gap Size	Bead Depth	Linear m per Tube
10mm	5mm	3.1
15mm	10mm	2.1
20mm	10mm	1.55
25mm	12mm	1.03
30mm	15mm	0.69
40mm	20mm	0.39
50mm	25mm	0.25

# Fire resistant flexible movement joint sealant

## DYNAMIC ACRYLIC SEALANT FS700

### FOR DYNAMIC BUILDING & CONSTRUCTION JOINTS

Nullifire FS700 is a single component, water based acrylic sealant. The product is designed to be used in conjunction with light-weight mineral fibre material to form a seal around the perimeter of the building envelope at the junction between floor slab and curtain wall. FS700 provides a fire, acoustic, water and smoke seal between floors whilst allowing for building movement up to 50%.

#### Key features

- Up to 3 hours fire resistance (depending upon substrate)
- Suitable for gaps up to 400mm wide
- Fully tested in curtain wall, cyclic and fire applications
- Quick and easy to install
- May be spray, trowel or brush applied
- No drilling or impaling brackets required
- Up to 5 times faster than conventional sealing
- Excellent tool ability and low slump characteristics
- Accommodates movement up to 50%
- Halogen free
- Resistant to mould fungus and vermin attack

### Product overview

#### Typical applications

- Curtain wall slab edge
- Head of wall
- Dynamic movement penetration seals

#### Joint substrates

- Masonry to masonry
- Steel to steel

#### Testing and certification

##### Fire performance

- Tested in accordance with EN 1366-4
- Up to 3 hours fire resistance
- Classification EN 13501

##### Acoustic performance

- EN ISO 140-3

##### Air permeability performance

- Tested in accordance with EN 1026

#### Technical support

Please refer to our MSDS and technical application data sheets for further details. For guidance on applications outside this scope, contact our technical department.



### Properties

Ph value	7-9
Specific gravity	1.1g/cm <sup>3</sup>
Touch dry @ 20°C	30-60 mins
Cure through time @ 20°C	3-5 days
VOC	65g/ltr
Gap size	400mm
Movement	50%

### Consumption

Joint width	Overlap 25mm to substrate	Length of seal per 20kg
50mm	100mm	63m
100mm	150mm	42m
150mm	200mm	31m
200mm	250mm	25m
300mm	350mm	18m
400mm	450mm	14m



## Installation guidance

### Preparation

- Clean all surfaces of loose particles, moisture, oils, grease and corrosive materials
- Install mineral fibre to the required depth and compression

### Spray installation

Using suitable spray equipment (see application notes) coat the mineral fibre with a WFT of 3mm and an overlap of 25mm onto the surrounding substrates

### Brush/trowel application

1. For brush/trowel application use a 'laying on' technique to ensure correct coverage
2. Minimum wet film per coat when applied using a brush is 3mm and a 25mm overlap

Using a roller for this application is not recommended.

### Maintenance

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

### Tools required

- Suitable spray equipment  
Airless spray equipment is recommended and should match these guidelines:  
**Operating pressure:** >3300psi (210kg/cm<sup>2</sup>)  
**Flow rate:** >4.7lt/per minute  
**Tip size:** 19 – 23 thou  
**Fan angle:** 20° – 40°  
**Hose diameter:** >10mm (3/8") (Internal diameter)  
**Hose length:** Max. 30 metres
- Pallet knife
- Mineral fibre
- Suitable brush

## Fire performance

Assessed gap widths	Integrity (mins)	Insulation (mins)	Mineral fibre
<b>Wall</b>			
Up to 150mm	180	120	60kg/m <sup>3</sup> , 150mm deep, 25% min compression
151 to 400mm	60	60	
Up to 150mm*	180	30	
<b>Floor</b>			
Up to 200mm	180	180	60kg/m <sup>3</sup> , 150mm deep, 25% min compression
201 to 400mm	180	60	

\*Denotes steel face substrate

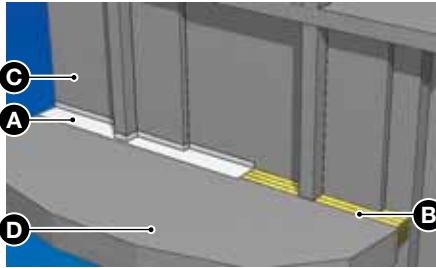
## Product range

Product	Description	Colour	Volume	Item No.
FS700	Dynamic Sealant	White	20kg	351531

# Fire resistant flexible movement joint sealant

## Application types

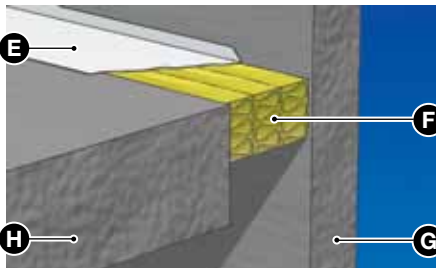
### Curtain wall slab edge



- A** FS700 Dynamic Acrylic Sealant
- B** Mineral fibre
- C** Curtain wall
- D** Floor slab edge

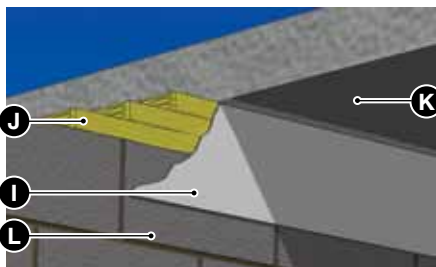
The interface between the edge of the structural floor slab and curtain wall cladding system. The system will typically extend around the full perimeter of the building envelope. The opening is required to be fire protected, any specified system should be able to provide dynamic movement that occurs due to live loading/unloading, wind forces, expansion and contraction of the perimeter façade.

### Curtain wall slab edge detail



- E** FS700 Dynamic Acrylic Sealant
- F** Mineral fibre
- G** Curtain wall
- H** Floor slab edge

### Head of wall



- I** FS700 Dynamic Acrylic Sealant
- J** Mineral fibre
- K** Floor slab
- L** Masonry wall

Positioned at the upper limits of vertical compartment lines, substrates generally comprise masonry or plasterboard partitions. The linear head sections of these structures are required to be fire protected, with a degree of dynamic movement incorporated within the system for live loading/unloading of the floor slab substrate.



# Fire resistant hand held PU foam

## PU FOAM

# FF177

### FOR BUILDING AND CONSTRUCTION JOINTS

Nullfire FF177 is a modified single component, fire rated polyurethane foam. FF177 PU foam can provide up to 4 hours fire protection to building gaps and linear joints. This product has also been designed to limit smoke movement and maintain the acoustic performance of the substrate. FF177 requires no additional gun for allocation and features the patented ergonomic cap system for ease-of-use, improved yield and accurate dosage during application.

#### Key features

- Suitable for gap widths up to 30mm
- Up to 4 hours fire resistance
- Easy to use ergo-cap system
- Quick and easy to install
- Sets tack free in 10 minutes
- Sets in a semi ridged structure, yields to vibration
- Resistant to mould fungus and vermin attack

## Product overview

### Typical applications

- Joints in compartment walls and floors
- Sealing in and around lightweight flexible partitioning
- Gaps between frames and structures
- In conjunction with Nullfire M701 and M703

### Joint substrates

- Timber
- Brick
- Stone
- Cement
- Plaster
- Steel

### Testing and certification

#### Fire performance

- Tested in accordance with EN 1366-4
- Up to 4 hours fire resistance
- Classification EN 13501 and DIN 4102: Part 1, B1

### Technical support

Please refer to our MSDS and technical application data sheets for further details. For guidance on applications outside this scope, contact our technical department.



## Properties

Density	30-40kg/m <sup>3</sup>
Shear strength	80kPa
Thermal conductivity	36mW/m.k
Tensile strength	103kPa
Touch dry @ 20°C	10 mins
Cure through time @ 20°C	60 mins
Temp resistance	-40 to 90°C
Gap size	Up to 30mm
Gap depth	100 to 200mm



## Installation guidance

### Preparation

- Always carry out a test to confirm compatibility prior to use
- Protect floor coverings with paper or a plastic film
- The surfaces must be dry, solid, stable and capable of carrying the load of the panels to be installed
- Remove all loose particles, dust and grease
- A speedier cure can be attained by moistening the substrates if needed

### Installation

1. Shake the canister vigorously at least 20 times. Leaving the cap on the can, screw the nozzle firmly into the connector on the top of the trigger
2. Remove safety catch and pull the trigger to activate can. Fill approximately half of the required depth of the cavity because the foam will expand
3. On horizontal surfaces always work away from the exuding bead and work upwards on all vertical surfaces
4. The foam is firmly set in approximately 1 hour (depending on temperature and humidity) when any excess can be trimmed with a sharp blade

### Maintenance

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

### Tools required

- Cutting knife
- Masking tape
- PU foam cleaner

### Approximate coverage rate

50 linear metres per canister based on 30mm x 100mm bead size.

## Fire performance

Substrate depth (mm)	Installation	Tested gap width (mm)	Integrity (mins)	Insulation (mins)
Masonry – Masonry 100mm	100mm deep PU foam	10	90	90
		20	60	60
		30	45	45
	1:1 ratio M701 back filled with PU foam	10	240	240
		20	120	120
		30	240	240
Masonry – Masonry 200mm	1:1 Ratio M703 back filled with PU foam	10	240	240
		20	240	240
		30	240	240
	200mm deep PU foam	10	240	240
		20	180	180
		30	120	120
1:1 Ratio M701/M703 back filled with PU foam	10	240	240	
	10	240	240	

FF177 can also be used in conjunction with M701 and M703 sealants for gap width up to 30mm and gap depth from 100mm to 200mm for up to 240 minutes. To provide a hermetic air seal FF177 should be used in conjunction with M701 or M703 sealants.

## Product range

Product	Description	Colour	Volume	Item No.
FF177	FR PU Foam (Hand Held)	Grey	880ml	351520
FF197	FR PU Foam (Gun Grade)	Grey	880ml	351521

## Associated products

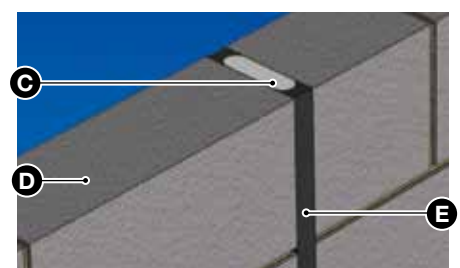
Product	Description	Page No.
M701	Acrylic FR Sealant	28
M703	Silicone FR Sealant	31

## Application types

### Horizontal/vertical gaps



- A** FF177 PU foam
- B** Wall/ceiling substrate



- C** FF177 PU foam
- D** Wall/ceiling substrate
- E** M701/703

# Fire resistant gun grade PU foam

## PU FOAM

# FF197

### FOR BUILDING AND CONSTRUCTION JOINTS

Nullfire FF197 is a modified single component, fire rated polyurethane foam. FF197 PU foam can provide up to 4 hours fire protection to building gaps and linear joints. This product has also been designed to limit smoke movement and maintain the acoustic performance of the substrate.

#### Key features

- Suitable for gap widths up to 30mm
- Up to 4 hours fire resistance
- Quick and easy to install
- Sets tack free in 10 minutes
- Sets in a semi ridged structure, yields to vibration
- Resistant to mould fungus and vermin attack

## Product overview

### Typical applications

- Joints in compartment walls and floors
- Sealing in and around lightweight flexible partitioning
- Gaps between frames and structures
- In conjunction with Nullfire M701 and M703

### Joint substrates

- Timber
- Brick
- Stone
- Cement
- Plaster
- Steel

### Testing and certification

#### Fire performance

- Tested in accordance with EN 1366-4
- Up to 4 hours fire resistance
- Classification EN 13501 and DIN 4102: Part 1, Class B1

### Technical support

Please refer to our MSDS and technical application data sheets for further details. For guidance on applications outside this scope, contact our technical department.



## Properties

Density	30-40kg/m <sup>3</sup>
Shear strength	80kPa
Thermal conductivity	36mW/m.k
Tensile strength	103kPa
Touch dry @ 20°C	10 mins
Cure through time @ 20°C	60 mins
Temp resistance	-40 to 90°C
Gap size	Up to 30mm
Gap depth	100 to 200mm





## Installation guidance

### Preparation

- Always carry out a test to confirm compatibility prior to use
- Protect floor coverings with paper or a plastic film
- The surfaces must be dry, solid, stable and capable of carrying the load of the panels to be installed
- Remove all loose particles, dust and grease
- A speedier cure can be attained by moistening the substrates if needed

### Installation

1. Shake the canister vigorously at least 20 times. Remove the protective cap and screw onto the illbruck PU foam gun
2. Invert can and direct nozzle into gap and press gently on the adaptor to establish the correct flow rate
3. Fill approximately half of the required depth of the cavity because the foam will expand
4. On horizontal surfaces always work away from the exuding bead and work upwards on all vertical surfaces

### Maintenance

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

### Tools required

- Cutting knife
- Masking tape
- PU foam cleaner

### Approximate coverage rate

50 linear metres per canister based on 30mm x 100mm bead size.

## Fire performance

Substrate depth	Installation	Tested gap width (mm)	Integrity (mins)	Insulation (mins)
Masonry – Masonry 100mm	100mm deep PU foam	10	90	90
		20	60	60
		30	45	45
	1:1 ratio M701 back filled with PU foam	10	240	240
		20	120	120
		30	240	240
Masonry – Masonry 200mm	200mm deep PU foam	10	240	240
		20	180	180
		30	120	120
	1:1 Ratio M701/M703 back filled with PU foam	10	240	240
		20	240	240
		30	240	240

FF197 can also be used in conjunction with M701 and M703 sealants for gap widths up to 30mm and gap depths from 100mm to 200mm for up to 240 minutes. To provide a hermetic air seal FF197 should be used in conjunction with M701 or M703 sealants.

## Product range

Product	Description	Colour	Volume	Item No.
FF177	FR PU Foam (Hand Held)	Grey	880ml	351520
FF197	FR PU Foam (Gun Grade)	Grey	880ml	351521

## Associated products

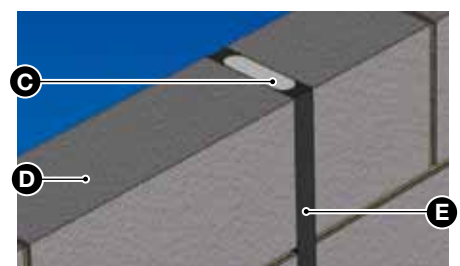
Product	Description	Page No.
M701	Acrylic FR Sealant	28
M703	Silicone FR Sealant	31
PU Gun	PU Foam Gun	N/A

## Application types

### Horizontal/vertical gaps



- A** FF197 PU foam
- B** Wall/ceiling substrate



- C** FF197 PU foam
- D** Wall/ceiling substrate
- E** M701/703

# Fire stop flexible intumescent gap seal

## GAP SEAL

# J2000

### FOR BUILDING MOVEMENT JOINTS

Nullifire J2000 is a cost effective, water resistant, flexible, compressible fire rated strip. In the event of a fire, J2000 can provide up to 4 hours fire protection, acoustic and smoke seal to building gaps and movement joints, whilst offering up to 50% movement. Installed under compression with no additional tools required.

#### Key features

- Up to 4 hours fire resistance
- Movement of up to 50%\*
- Unaffected by water
- Structural and dynamic movement capabilities
- Supplied in 1m lengths, with no additional tools required
- No maintenance required
- Resistant to mould, fungus and vermin attack
- Fully tested in accordance with BS 476-Pt20 and EN 1366-4
- Reinstates the acoustic integrity of the substrate

\*Increased movement capabilities may be achieved by using a larger J2000 size required for the gap width

## Product overview

### Typical applications

- Expansion joints
- Butt joints within the structural frame
- Dynamic movement joints
- Cavity barriers
- Slab edge curtain wall sealing

### Joint substrates

- Masonry to masonry
- Steel to steel
- Masonry to steel

### Testing and certification

#### Fire performance

- Tested in accordance with BS 476-Pt20 EN 1366-4
- Up to 4 hours fire resistance
- Classification EN 13501-2

#### Acoustic performance

- Tested in accordance with EN ISO 140-3

### Technical support

Please refer to our MSDS and technical application data sheets for further details. For guidance on applications outside this scope, contact our technical department.



## Specification

Supplied in 1m lengths, slightly oversize to ensure a tight fit.

<b>J2000</b>	Flexible graphite impregnated intumescent material, encased within a polythene sleeve
Length	1000mm
Colour	Black

## Installation

### Preparation

- Clean all surfaces of loose particles
- Check specification is suitable for movement, fire rating and gap size

### Installation

1. Compress length of J2000 and starting at one end compress and insert into the gap
2. Ensure tight fit within the gap
3. Install next strip as above ensuring the sections are tightly abutted
4. Cut final piece of J2000 to suit gap length



## Installation (continued)

### Maintenance

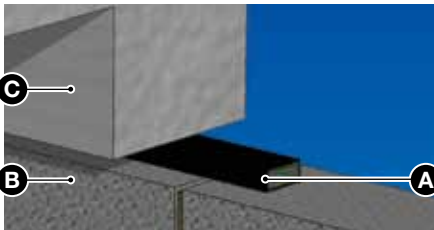
No maintenance required after installation. Routine inspection recommended to ensure no damage.

### Tools required

- Sharp knife

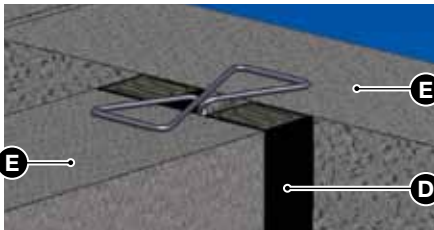
## Application types

### Horizontal head of wall



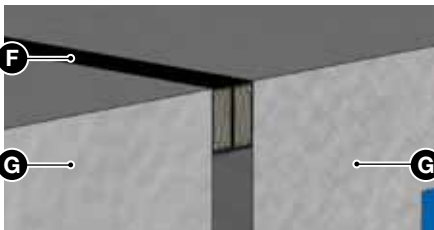
- A** J2000 Gap Seal
- B** Masonry wall
- C** Floor slab

### Vertical movement joint



- D** J2000 Gap Seal
- E** Masonry wall

### Horizontal movement joint



- F** J2000 Gap Seal
- G** Floor slab

## Fire performance BS 476-Pt20 testing

Product	Nominal Gap Size	Actual Size (HxD)	Min joint width (mm)	Max joint width (mm)	Integrity (mins)
<b>Masonry wall/masonry floor</b>					
J2000A	10mm	15 x 15mm	8	13	240
J2000B	20mm	25 x 20mm	13	20	240
J2000C	30mm	40 x 20mm	20	35	240
J2000D	50mm	60 x 30mm	35	50	240
J2000E	70mm	85 x 45mm	50	70	240
J2000F	100mm	120 x 60mm	70	100	240
J2000G	150mm	180 x 90mm	100	150	120

## Fire performance EN 1366-4 testing

Product	Min joint width (mm)	Max joint width (mm)	Integrity (mins)	Insulation (mins)
<b>Masonry wall</b>				
J2000/B	13	20	240	240
J2000/D	35	50	240	60
J2000/E	50	70	240	30
J2000/F	70	100	240	30
<b>Masonry floor</b>				
J2000/B	13	20	240	240
J2000/D	35	50	240	30
J2000/E	50	70	240	30
J2000/F	70	100	240	30

## Product range

Product	Description	Colour	Size	Item No.
J2000/A	Flexible Intumescent Gap Seal	Black	1m length	350637
J2000/B	Flexible Intumescent Gap Seal	Black	1m length	350641
J2000/C	Flexible Intumescent Gap Seal	Black	1m length	350628
J2000/D	Flexible Intumescent Gap Seal	Black	1m length	350643
J2000/E	Flexible Intumescent Gap Seal	Black	1m length	350642
J2000/F	Flexible Intumescent Gap Seal	Black	1m length	350644
J2000/G	Flexible Intumescent Gap Seal	Black	1m length	350645

# Fire stop flexible intumescent gap seal

## GAP SEAL

# J3000

### FOR BUILDING MOVEMENT JOINTS

Nullifire J3000 is a cost effective, water resistant, flexible, compressible fire rated strip. In the event of a fire, J3000 can provide up to 2 hours fire protection and smoke seal to building gaps and movement joints, whilst offering up to 50% movement. Installed under compression with no additional tools required.

#### Key features

- Up to 2 hours fire resistance
- Cost effective and easy to install
- Movement of up to 50%\*
- Unaffected by water
- Structural and dynamic movement capabilities
- Supplied in 1m lengths, with no additional tools required
- No maintenance required
- Resistant to mould, fungus and vermin attack
- Fully tested in accordance with BS 476-Pt20

\*Increased movement capabilities may be achieved by using a larger J3000 size required for the gap width

## Product overview

### Typical applications

- Expansion joints
- Butt joints within the structural frame
- Dynamic movement joints
- Cavity barriers
- Slab edge curtain wall sealing

### Joint substrates

- Masonry to masonry
- Steel to steel
- Masonry to steel

### Testing and certification

#### Fire performance

- Tested in accordance with BS 476-Pt20 EN 1366-4
- Up to 2 hours fire resistance

### Technical support

Please refer to our MSDS and technical application data sheets for further details. For guidance on applications outside this scope, contact our technical department.



## Specification

Supplied in 1m lengths, slightly oversize to ensure a tight fit.

<b>J3000</b>	Flexible graphite impregnated intumescent material, encased within a polythene sleeve
Length	1000mm
Colour	Black

## Installation

### Preparation

- Clean all surfaces of loose particles.
- Check specification is suitable for movement, fire rating and gap size

### Installation

1. Compress length of system J3000 and starting at one end compress and insert into the gap
2. Ensure tight fit within the gap
3. Install next strip as above ensuring the sections are tightly abutted
4. Cut final piece of J3000 to suit gap length

### Maintenance

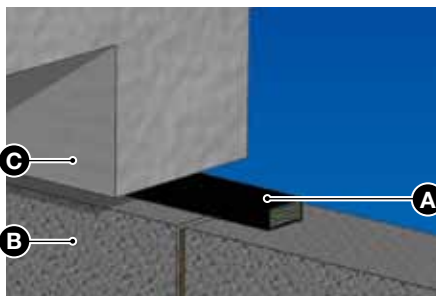
No maintenance required after installation. Routine inspection recommended to ensure no damage.

### Tools required

- Sharp knife

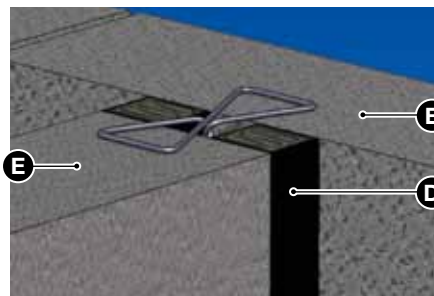
## Application types

### Horizontal head of wall



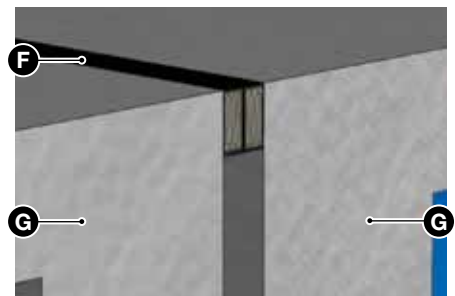
- A** J3000 Gap Seal
- B** Masonry wall
- C** Floor slab

### Vertical movement joint



- D** J3000 Gap Seal
- E** Masonry wall

### Horizontal movement joint



- F** J3000 Gap Seal
- G** Floor slab

## Fire performance BS 476-Pt20 testing

Product	Nominal Gap Size	Actual Size (HxD)	Min joint width (mm)	Max joint width (mm)	Integrity (mins)
<b>Masonry wall/masonry floor</b>					
J3000A	10mm	12 x 12mm	5	10	120
J3000B	20mm	29 x 12mm	11	20	120
J3000C	35mm	53 x 20mm	21	35	120
J3000D	50mm	61 x 35mm	36	50	120
J3000E	60mm	85 x 40mm	51	60	120
J3000F	100mm	126 x 100mm	61	100	120
J3000G	150mm	170 x 100mm	101	150	120

## Product range

Product	Description	Colour	Size	Item No.
J3000/A	Flexible Intumescent Gap Seal	Black	1m length	350913
J3000/B	Flexible Intumescent Gap Seal	Black	1m length	350914
J3000/C	Flexible Intumescent Gap Seal	Black	1m length	350915
J3000/D	Flexible Intumescent Gap Seal	Black	1m length	350916
J3000/E	Flexible Intumescent Gap Seal	Black	1m length	350917
J3000/F	Flexible Intumescent Gap Seal	Black	1m length	350918
J3000/G	Flexible Intumescent Gap Seal	Black	1m length	350919





## SECTION FOUR

### PIPE AND PENETRATION CLOSING

Systems for reinstating the compartmentation of walls or ceilings when penetrated by building services.



# Fire stop intumescent pipe collar

## PIPE COLLAR

# B150

### FOR UPVC, PVC, ABS, PP, PE AND COMPOSITE PIPE PENETRATIONS

Nullifire B150 is a galvanised steel surface mounted intumescent fire stop pipe collar. In the event of a fire, B150 prevents the passage of fire and smoke by closing off the aperture within the compartment floor or wall when penetrated by plastic pipes.

#### Key features

- Up to 2 hours fire resistance
- Surface mounted system
- Lightweight and easy to install
- Design allows for thermal movement of the pipe
- Fixing brackets mechanically attached to the collar housing
- Provides effective cold smoke seal when used with Nullifire Acrylic Sealant

## Product overview

### Typical applications

Reinstates the integrity of plastic pipe work in the following:

- Health and leisure centres
- Schools, universities and other educational buildings
- Hospitals
- Industrial, power generation plants
- Transport

### Joint substrates

- Masonry walls
- Masonry floors

### Permissible services

- PVC pipes
- UPVC pipes
- ABS pipes
- PE pipes
- PP pipes
- Composite pipes

### Testing and certification

#### Fire performance

- Tested in accordance with EN 1366-3
- Up to 2 hours fire resistance
- Classification EN 13501

### Technical support

Please refer to our MSDS and technical application data sheets for further details. For guidance on applications outside this scope, contact our technical department.

## Specification

<b>B150</b>	120 minute system	Galvanised mild steel
-------------	-------------------	-----------------------

Sizes 55mm – 160mm.





## Installation guidance

### Preparation

Ensure face of wall/floor adjacent to the pipe is smooth and free from debris

### Installation

1. Position Nullifire B150 Pipe Collar around the pipe and against the wall/floor
2. Slide the fixing clip in place
3. Bend clip back to fasten collar around the pipe
4. Fix collar into place using a suitable fixings

### Maintenance

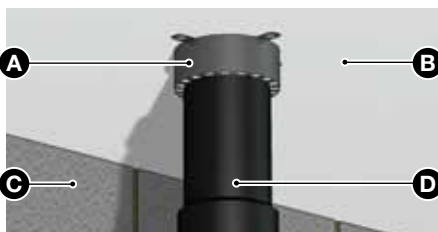
No maintenance required after installation. Routine inspection recommended to ensure no damage.

### Tools required

- Fixing anchors or heavy duty screws
- Suitable drill
- Nullifire M701 Acrylic Sealant for smoke seal

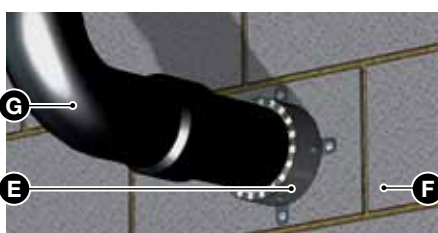
## Application types

### Horizontal penetrations



- A** B150 Pipe Collar      **B** Ceiling  
**C** Masonry wall      **D** Plastic pipe

### Vertical penetrations



- E** B150 Pipe Collar      **F** Masonry wall  
**G** Plastic pipe

## Fire performance

Pipe type	Pipe diameter (mm)	Integrity (mins)	Insulation (mins)
<b>Masonry wall</b>		<b>(Collar to be fitted on both sides)</b>	
VC/UPVC	up to 160mm	120	120
PP	up to 160mm	120	120
PE	up to 160mm	120	120
Composite SBS/ASA/PVC	up to 52mm	120	120
	13-29mm	90	90
ABS	50mm	90	90
<b>Masonry floor</b>		<b>(Collar to be fitted to the underside)</b>	
PVC/UPVC	up to 160mm	120	120
PP	up to 58mm	120	120
	58-160mm	60	30
PE	up to 160mm	120	120
Composite SBS/ASA/PVC	up to 52mm	120	120
	52-160mm	60	60
ABS	160mm	120	120

## Product range

Product	Description	Colour	Diameter (mm)	Item No.
B150	Fire Stop Intumescent Collar	White	55mm	350651
B150	Fire Stop Intumescent Collar	Grey	80mm	350652
B150	Fire Stop Intumescent Collar	White	110mm	350653
B150	Fire Stop Intumescent Collar	Grey	160mm	350654

## Associated products

Product	Description	Page No.
M701	Acrylic Sealant (310ml) White	28
M701	Acrylic Sealant (600ml) White	31

# Fire stop intumescent pipe wrap

## INTUMESCENT WRAP B300

### FOR UPVC, PVC, ABS, PP, PE & COMPOSITE PIPE PENETRATIONS

Nullifire B300 is a simple to use, self adhesive intumescent pipe wrap. The B300 fits around the circumference of the pipe within the depth of the substrate. In the event of a fire, B300 prevents the passage of fire and smoke by closing off the aperture within the compartment floor or wall when penetrated by plastic pipes.

#### Key features

- Up to 2 hours fire resistance
- Ready to use and easy to install
- Water resistant
- High performance expansion rate
- Flexible and easy to fasten in place
- No mechanical fixing required
- One wrap can be used for certain applications\*
- Can be utilised internally with Nullifire B747-50 Coated Board System
- Easy to reinstate any remaining gaps with M701 Acrylic, B220 Structural Compound or B270 High Strength Structural Grade Compound.

\*See testing matrix for scope of application

## Product overview

### Typical applications

- Health and leisure centres
- Schools, universities and other educational buildings
- Hospitals
- Industrial, power generation plants

### Joint substrates

- Masonry walls
- Masonry floors

### Permissible services

- PVC pipes
- UPVC pipes
- ABS pipes
- PE pipes
- PP pipes
- Composite pipes

### Testing and certification

#### Fire performance

- Tested in accordance with EN 1366-3
- Up to 4 hours fire resistance
- Classification EN 13501

### Technical support

Please refer to our MSDS and technical application data sheets for further details. For guidance on applications outside this scope, contact our technical department.



## Specification

<b>B300</b>	Flexible intumescent graphite strip encased within polythene sleeve
-------------	---

Sizes 55mm – 160mm.

Pipe size (mm)	Wrap width (mm)	Wrap length (mm)	Wrap Thickness (mm)
55	60	183	3.5
82	60	274	3.5
110	60	368	6
160	60	559	9.5

## Installation guidance

### Preparation

Ensure face of wall/floor adjacent to the pipe is smooth and free from debris.

### Installation

1. Push Wrap into position
2. Seal in place utilising suitable material, M701 Acrylic, B220 or B270 Structural Compound

### Maintenance

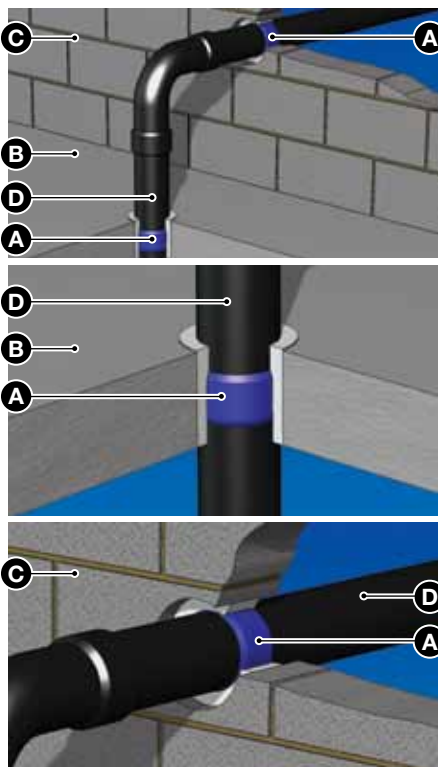
No maintenance required after installation. Routine inspection recommended to ensure no damage.

### Tools required

Suitable material to seal annular space, M701 Acrylic, B220 Structural Compound or B270 High Strength Structural Compound.

## Application types

### Horizontal/vertical penetrations



- A** B300 Pipe Wrap
- B** Floor slab
- C** Masonry wall
- D** Plastic pipe

## Fire performance

Pipe material	Pipe diameter (mm)	Integrity (mins)	Insulation (mins)
<b>Masonry wall (One Wrap Central)</b>			
PVC	up to 160	120	120
PP	up to 55	60	30
	55-160	120	120
PE	up to 55	120	120
Composite Aluplex	up to 55	120	120
	55-160	60	60
ABS	up to 160	120	120

<b>Masonry floor (One Wrap)</b>			
PVC/UPVC	up to 160	120	120
PP	up to 160	120	120
PE	up to 56	120	120
Composite ABS/ASA/PVC	up to 52	120	120
	52-160	60	60
PVC duct	110 x 54	120	120
	310 x 28	120	120
	180 x 95	120	120

<b>Masonry wall (Two Wraps one either side flush with substrate)</b>			
PVC	up to 160	120	120
PP	up to 110	120	120
	110-160	120	60
PE	up to 110	120	120
	110-160	60	60
Composite Aluplex	40	120	120
	75	120	60
ABS	up to 160	120	120

## Product range

Product	Description	Diameter (mm)	Box Qty.	Item No.
B300	Fire Stop Intumescent Wrap	55mm	20	351042
B300	Fire Stop Intumescent Wrap	80mm	20	351045
B300	Fire Stop Intumescent Wrap	110mm	20	351046
B300	Fire Stop Intumescent Wrap	160mm	20	351048

## Associated products

Product	Description	Page No.
M701	Acrylic Sealant (310ml) White	28
M701	Acrylic Sealant (600ml) White	28
B220	Structural Grade Compound	22
B270	High Strength Structural Grade Compound	24

# Fire stop intumescent pipe sleeve

## PIPE SLEEVE

# B600

### FOR SEALING COMBUSTIBLE, INSULATED OR METALLIC PIPES

Nullifire B600 is an insulated intumescent pipe sleeve. The B600 is easily cut and installed around the circumference of a pipe within the depth of the substrate. In the event of a fire, B600 prevents the passage of fire and smoke by closing off the aperture within the compartment floor or wall when penetrated by plastic pipes.

#### Key features

- Up to 2 hours fire resistance
- Quick and easy to install
- Zero wastage
- Can be installed from one side
- 300mm long to ensure multiple penetrations possible from one sleeve
- Maintains the vapour barrier of existing penetration
- No fixings or special tools
- Allows for thermal movement
- Suitable for pipes entering the substrate at an angle.

## Product overview

### Typical applications

#### Fire

Nullifire B600 is suitable for plastic and metallic pipes in drywall, timber floor construction and Mineral Fibre Barriers (B747).

#### Insulation

Nullifire B600 will re-instate the vapour barrier of insulated plastic and metallic pipes at positions where they pass through the separating element. Reinstates the integrity of plastic pipe and metallic pipework in the following:

- Health and leisure centres
- Schools, universities and other educational buildings
- Hospitals
- Industrial, power generation plants
- Transport

#### Joint substrates

- Masonry floor/wall
- Plasterboard partition
- Timber floor
- In conjunction with Nullifire B747 Coated Batt System

#### Permissible services

- PVC pipes
- ABS pipes
- PE pipes
- PP pipes
- PB pipes
- Copper pipes
- Steel pipes
- Single and bunched cables

#### Testing and certification

##### Fire performance

- Tested in accordance with EN 1366-3 and BS 476-Pt20
- Up to 2 hours fire resistance

##### Acoustic performance

- Tested in accordance with EN ISO 140-3



## Specification

B600

Steel Foil Faced  
Intumescent Pipe Sleeve

#### Technical support

Please refer to our MSDS and technical application data sheets for further details. For guidance on applications outside this scope, contact our technical department.

## Installation guidance

### Preparation

Ensure face of wall/floor adjacent to the pipe is smooth and free from debris

### Installation

1. Cut B600 Sleeve to required length
2. Fit sleeve onto pipe as follows:
  - i. Make a single slit along the sleeve length to allow sleeve to fit around installed pipe
  - ii. Fit sleeve around pipe – and re-seal the slit with the repair tape provided
  - iii. Slide sleeve along pipe into the cavity
3. Tape sleeve to existing insulation if required

Minimum 25mm to protrude out of penetration.

### Maintenance

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

### Tools required

- Sharp knife

## Fire performance

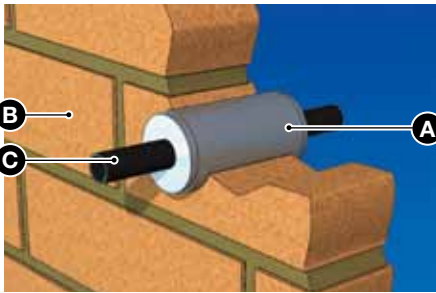
Pipe material	Pipe diameter (mm)	Integrity (mins)	Insulation (mins)
<b>B747 coated board</b>			
PB	up to 28	120	120
PVC	up to 82	120	120
	up to 160	60	60
<b>Plasterboard partitioned (25mm B600 overhang either side)</b>			
PB	up to 28	120	120
PVC	up to 160	120	120
	55-160	60	60
PE	up to 160	120	120
PP	up to 55	120	120
	55-160	90	60
ABS	up to 160	120	120
Steel	up to 22	120	120
Copper	up to 20	120	120
<b>Masonry wall (flush finish)</b>			
PB	up to 28	120	120
PVC	up to 82	120	120
	82-110	120	90
	110-160	90	90
Steel	up to 22	120	120
	22-165	120	N/A
<b>Masonry floor</b>			
PVC	up to 82	120	120
	82-160	90	90
Steel	up to 21.5	120	N/A
<b>Timber/Masonry floor</b>			
PP	up to 158	90	90
PE	up to 136	90	90
ABS/ASA/PVC	up to 153	90	90

Single cables and bunches also possible. Contact Nullifire customer services for further information.

# Fire stop intumescent pipe wrap

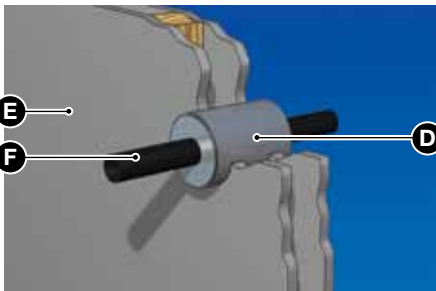
## Application types

### Curtain wall slab edge masonry wall



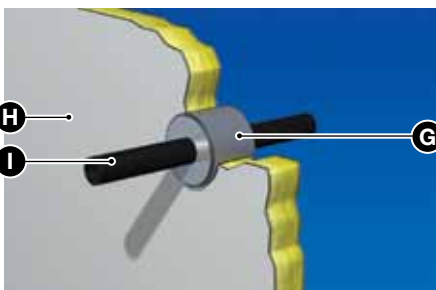
- A** B600 Pipe Sleeve
- B** Masonry wall
- C** Plastic pipe

### Lightweight partition



- D** B600 Pipe Sleeve
- E** Lightweight partition
- F** Plastic or metallic pipe

### B747 Coated Batt



- G** B600 Pipe Sleeve
- H** B747 Coated Batt
- I** Plastic or metallic pipe

## Product range

Product	Description	Nominal Size	Box Qty.	Item No.
B600	Fire Stop Sleeve	17mm	6	350711
B600	Fire Stop Sleeve	21mm	6	350712
B600	Fire Stop Sleeve	27mm	6	350713
B600	Fire Stop Sleeve	34mm	6	350714
B600	Fire Stop Sleeve	42mm	6	350715
B600	Fire Stop Sleeve	48mm	6	350716
B600	Fire Stop Sleeve	54mm	6	350717
B600	Fire Stop Sleeve	60mm	6	350718
B600	Fire Stop Sleeve	67mm	6	350719
B600	Fire Stop Sleeve	76mm	6	350720
B600	Fire Stop Sleeve	80mm	6	350721
B600	Fire Stop Sleeve	89mm	6	350722
B600	Fire Stop Sleeve	108mm	6	350723
B600	Fire Stop Sleeve	114mm	6	350724
B600	Fire Stop Sleeve	140mm	6	350725
B600	Fire Stop Sleeve	159mm	6	350726

## Associated products

Product	Description	Page No.
M701	Acrylic Sealant	28
B747-50/60	Coated Board System	10-15
B220	Structural Grade Compound	22
B270	High Strength Structural Grade Compound	24



# Fire stop intumescent sealant

## INTUMESCENT SEALANT

# M705

### FOR COMBUSTIBLE & NON-COMBUSTIBLE PENETRATIONS

Nullifire M705 is a single part, graphite based fire resistant intumescent sealant. M705 is designed to close off gaps and penetrations in compartment walls and floors, to provide up to 2 hours fire resistance. This product has also been designed to close off plastic pipe penetrations, negating the need for pipe closers or wrap systems.

#### Key features

- Up to 2 hours fire resistance
- Replaces the need for wrap or collar up to 90mm diameter
- Quick and easy to use
- Suitable for a wide range of penetrating items and substrates
- Excellent tool ability and low slump characteristics
- Low shrinkage
- Resistant to mould fungus and vermin attack

## Product overview

### Typical applications

Reinstates the integrity of plastic pipe work in the following:

- Health and leisure centres
- Schools, universities and other educational buildings
- Hospitals
- Industrial, power generation plants
- Transport

### Joint substrates

- Masonry walls/floors
- Drywall
- In conjunction with Nullifire B747 Coated Batt System

### Permissible services up to 90mm diameter

- PVC pipes
- UPVC pipes
- ABS pipes
- PE pipes
- PP pipes
- Composite pipes
- Various single and bunched cables
- Insulated steel pipes

### Testing and certification

#### Fire performance

- Tested in accordance with EN 1366-3
- Up to 2 hours fire resistance
- Classification EN 13501

#### Acoustic performance

- Tested in accordance with EN ISO 140-3

#### Air permeability performance

- Tested in accordance with EN 1026

### Technical support

Please refer to our MSDS and technical application data sheets for further details. For guidance on applications outside this scope, contact our technical department.



## Properties

Solid content	82.7%
Specific gravity	1.51g/cm <sup>3</sup>
Viscosity	Thixotropic
Tensile strength	0.6MPa
Touch dry @ 20°C	25 minutes
Cure through time @ 20°C	2-3mm/day
VOC	17.5g/lt
Activation temperature	250-300°C
Expansion rate	1ml becomes 14ml



## Installation guidance

### Preparation

Clean all surfaces of loose particles, moisture, oils, grease and corrosive materials.

### Installation

1. Ensure pipe type and diameter are suitable (see application notes)
2. Ensure annular space is sufficient
3. Cut nozzle from cartridge to suit bead size
4. Apply sealant into the annular space ensuring contact with pipe and substrate
5. Tool to a finish with a spatula

### Maintenance

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

### Tools required

- Suitable skeleton/sausage gun, 310ml
- Palette knife and spatula

## Fire performance

Substrate	Pipe diameter	Pipe material	Integrity (mins)	Insulation (mins)
Drywall – Masonry	Up to 90	PVC	120	120
		PP	120	120
		HDPE	120	120
		ABS	120	120

## Product range

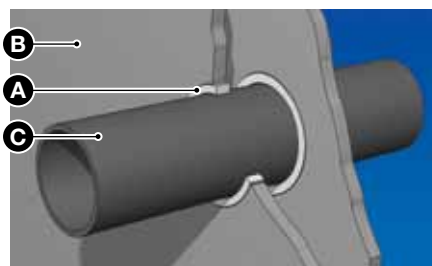
Product	Description	Colour	Volume	Item No.
M705	Intumescent Sealant	Grey	310ml	351574

## Associated products

Product	Description
Skeleton Gun	310ml Cart Dispenser
Skeleton gun	600ml Sausage Dispenser
PE Backing Rod/Spacer	Polythene Rod

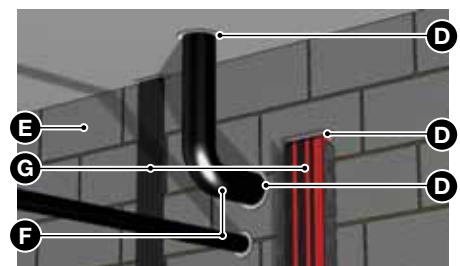
## Application types

### Lightweight partition



- A** M705 Intumescent Sealant
- B** Lightweight partition wall
- C** Plastic pipe

### Masonry wall



- D** M705 Intumescent Sealant
- E** Masonry wall
- F** Plastic pipe
- G** Cables/Services

## M705 Coverage Rates

Pipe Diameter	Minimum annulus	No. of pipes per 310ml cartridge
20mm	5mm	39
40mm	10mm	10
60mm	15mm	4
80mm	20mm	2.5
90mm	22.5mm	2

Based on minimum annulus. Minimum bead depth required 25mm.

# Fire stop electrical backing box pads

## PUTTY PADS

# FO100

### FOR PLASTIC AND METALLIC ELECTRICAL BACKING BOXES

Nullifire FO100 is a non-setting, intumescent, silicone based putty pad. Available in large and small, FO100 is designed to reinstate the fire integrity of the substrate when penetrated by an electrical backing box, eliminating the requirement for a baffle box. This product has also been approved to maintain the acoustic performance of the substrate in accordance with 'Approved Document E' ROBUST DETAILS and is fully tested to meet the air leakage requirements of 'Approved Document L' providing a hermetic seal.

#### Key features

- Up to 2 hours fire resistance
- Reinstates the acoustic integrity of a 65dB partition (four boxes, two back to back)
- Electrically non-conductive
- No need for expensive baffle boxes
- Easy to install
- Resistant to mould fungus and vermin attack
- Asbestos and halogen free

## Product overview

### Typical applications

Reinstates the integrity of plastic pipe work in the following:

- Health and leisure centres
- Schools, universities and other educational buildings
- Hospitals
- Industrial, power generation plants
- Transport

### Joint substrates

- Masonry walls/floors
- Drywall

### Typical application

Reinstates fire and acoustic integrity and insulation to:

- Double/single gang plastic socket fittings
- Double/single gang metallic socket fixings
- Plasterboard partition back to back and off-set
- Block wall back to back and off-set

### Testing and certification

#### Fire performance

- Tested in accordance with EN 1366-3
- Up to 2 hours fire resistance
- Classification EN 13501

#### Acoustic performance

- Tested in accordance with EN ISO 140-3

#### Air permeability performance

- Tested in accordance with EN 1026

### Technical support

Please refer to our MSDS and technical application data sheets for further details. For guidance on applications outside this scope, contact our technical department.

## Properties

Specific gravity	1.55-1.6g/cm <sup>3</sup>
Consistency	Stiff putty
Intumescent temperature	Approx 250°C
Composition	Silicone, rubber, polymer, containing intumescent fillers (blue)



## Installation guidance

### Preparation

Clean all surfaces of loose particles, moisture, oils, grease and corrosive materials.

### Installation

1. Fold the pad to the shape of the box pressing the edges together
2. Press home in and around the box
3. Work in and around the corners to ensure complete coverage
4. For external application press home against the partition
5. For internal application trim back around the box to suit

### Maintenance

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

### Tools required

- Palette knife and spatula

### Outside socket box



### Inside socket box



## Fire performance

Seal ref.	Putty Pad orientation				Fire Performance (mins)	
	Fireside		Non-fireside		Integrity	Insulation
	Int	Ext	Int	Ext		
<b>Socket box orientation: back to back</b>						
1	●		●		120	120
2		●		●	120	120
3	●			●	120	120
4		●	●		120	120
5*	●		●		120	90
<b>Socket box orientation: offset</b>						
6	●		●		120	120
7		●		●	120	90
8	●			●	90	90
9		●	●		120	120
10*	●		●		90	90

\* Denotes Non-EN Standard Partition

## Product range

Product	Description	Colour	Box Qty.	Item No.
FO100	Single Intumescent Putty Pad	Blue	20	351005
FO101	Double Intumescent Putty Pad	Blue	20	351018





## SECTION FIVE

### SEALANTS AND COATINGS

Ancillary products, including sealants and coatings, to complete systems and aid installation.



# Fire resistant acrylic coatings

## ACRYLIC SEALANT

# FS711 FS721

### FOR ALL BUILDING AND CONSTRUCTION JOINTS

FS711 Spray Grade Acrylic Sealant is a single part water based fire resistant sealant. FS711 can provide up to 4 hours fire resistance when used as a coating in conjunction with a suitable density mineral fibre board. FS711 is designed to be spray or brush applied and is fully tested as part of the B747 system.

FS721 Trowelable/Coatback Acrylic Sealant is a single part water based fire resistant sealant. FS721 sealant can provide up to 4 hours fire resistance when used in conjunction with Nullifire B747 Coated Board System. FS721 is designed to be brush or trowel applied to seal the uncoated edges of B747, or provide coatback where required.

#### Key features

- Up to 4 hours fire resistance
- Suitable for use in conjunction with Nullifire B747 Coated Board System
- Accommodates movement of up to 20%
- Easily paintable
- Low shrinkage
- Resistant to mould fungus and vermin attack

## Product overview

### Typical applications

#### FS711

- Spray or brush application on to mineral fibre boards
- Painting around a masked off service opening to provide an aesthetic finish

#### FS721

- Coatback of cables to provide insulation in accordance with EN1366-3
- Trowel application of sealant at joints of Nullifire B747-50/60 system

### Joint substrates

- In conjunction with Nullifire B747 Coated Board System

### Testing and certification

#### Fire performance

- Tested in accordance with EN 1366-3+4
- Up to 4 hours fire resistance
- Classification EN 13501

#### Acoustic performance

- Tested in accordance with EN ISO 140-3

#### Air permeability performance

- Tested in accordance with EN 1026

### Technical support

Please refer to our MSDS and technical application data sheets for further details. For guidance on applications outside this scope, contact our technical department.



## Properties

Solid content	82-85%
Ph value	8.8-10.0
Specific gravity	1.5-1.6g/cm <sup>3</sup>
Viscosity	Thixotropic
Tensile strength	170kN/m <sup>2</sup>
Touch dry @ 20°C	30 minutes
Cure through time @ 20°C	20 days
VOC	19g/ltr
Gap depth (mm)	100 to 200mm

## Installation guidance

### Preparation

Clean all surfaces of loose particles, moisture, oils, grease and corrosive materials.

### Installation: FS711

#### Spray application

1. Using suitable spray equipment, coat the mineral fibre batt (minimum density 160kg/m<sup>3</sup>) with a minimum DFT 0.7mm
2. Allow to dry before use

#### Brush application

1. Using a laying on technique, coat the mineral fibre batt (minimum density 160kg/m<sup>3</sup>) with a minimum DFT 0.7mm
2. Allow to dry before use

### Installation: FS721

#### Coatback application

1. Remove any grease or debris from the services that require coat back
2. Using a trowel or brush, apply FS721 to the service penetrations at a distance of 150mm (DFT 2mm) from the separating element

#### Trowel application

1. Begin installation of Nullifire B747 products as per installation instructions
2. Trowel apply FS721 to all uncoated edges/junctions to coat all visible mineral fibre
3. Trowel apply FS721 to all joints once the system is in-situ to effectively seal the system

### Maintenance

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

### Tools required

#### FS711

- Suitable spray equipment
- Brush

#### FS721

- Trowel
- Brush

## Product range

Product	Description	Colour	Volume	Item No.
FS711	Spray Grade Sealant	White	10kg	351748
FS711	Spray Grade Sealant	White	20kg	350683
FS721	Trowel/Coatback Sealant	White	2.5kg	351747
FS721	Trowel/Coatback Sealant	White	5kg	350648
FS721	Trowel/Coatback Sealant	White	10kg	350647

## Associated products

Product	Description	Page No.
B747-50	Coated Board System	10
B747-60	Coated Board System	13

## Direct UK Sales

Nullifire

Tremco illbruck Coatings Ltd

Torrington Avenue

Coventry

CV4 9TJ

England

Tel: +44 (0) 2476 855 000

Fax: +44 (0) 2476 469 547

Email: [protect@nullifire.com](mailto:protect@nullifire.com)

Web: [www.nullifirefirestopping.co.uk](http://www.nullifirefirestopping.co.uk)

An  Company



All information in this brochure is provided in good faith by Nullifire and is believed correct at the time of printing. Nullifire reserve the right to change product specifications in line with their policy of continuing product development. Nullifire and TREMCO are Registered Trade Marks

Issue Date 07/12

