

### KEY BENEFITS SUMMARY

- Can achieve up to 4 hours joint fire resistance tested in accordance with EN 1366-3, EN 1366-4 and ETAG 026.
- Ideal for sealing low movement joints - suitable for gaps up to 50 mm wide
- Suitable for rigid and flexible walls
- Used for sealing Nullifire B747 Coated Fire Batts
- Acoustics up to 61 dB
- Air seal up to 600 Pa
- Single sided seal tested
- Easily paintable

### PRODUCT INFORMATION

#### Description

Nullifire FS701 is a one-part fire resistant joint sealant.

#### Usage / Purpose

Nullifire FS701 cures to give a firm, but flexible seal in low movement fire rated joints to seal between joints in Nullifire B747 FR Coated Batts, substrate to penetration service applications and pointing up of penetration seals. Nullifire FS701 Sealant may be used to provide a linear joint or gap seal with specific supporting constructions and substrates and as a penetration seal.

#### SUBSTRATES

- Masonry to masonry
- Masonry to timber
- Masonry to steel
- Nullifire B747 to flexible wall

- Nullifire B747 to rigid wall
- Flexible wall to flexible wall
- Flexible wall to rigid floor
- Rigid floor to rigid floor
- Rigid wall to rigid wall

#### Colours

White & grey.

#### Packaging

310 ml cartridges (12 per box)  
600 ml sausages (12 per box)

#### Availability

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

### USAGE GUIDELINES

#### Necessary Tools

Standard cartridge/skeleton gun; sharp knife; palette knife or spatula

#### Joint Design Considerations

Refer to published test results for guidance on joint design.

#### Preparation

- All surfaces must be clean and sound, free from dirt, grease and other contamination.
- Wood plaster and brick may be damp but not running wet.
- Use mechanical abrasion to clean porous surfaces if necessary before application.
- Check specification is suitable for movement, fire rating and gap size required.

#### Priming

Priming is not required with most construction materials but porous surfaces should be primed with illbruck WD110 PVA Adhesive.

#### Application

- Insert backing material (refer to performance on backing materials), oversized to joint width to ensure stability, to provide correct depth of seal (minimum 6 mm).
- For double seal: Use PE Backing Rod.
- Using a sharp knife, cut nozzle of cartridge to bead size and angle required.
- Gun sealant into gap to required depth by applying an even pressure to the trigger.
- Tool to a smooth finish immediately with a wet palette knife or spatula.

#### Coverage

To determine quantity of sealant required, calculate as follows (in mm) (Double Seal):

$$\frac{\text{Gap width} \times \text{Depth} \times \text{Total length}}{310} = \text{N}^\circ \text{ of cartridges}$$

For further guidance on application methods, and material requirements, please contact Tremco illbruck Technical Services Department.

#### Cleaning

Immediately remove all excess sealant adjacent to the joint (use masking tape where appropriate). Clean tools in hot water.

#### Storage

Store in dry conditions between +5°C and +40°C. Do not allow to freeze.

#### Shelf Life

18 months when stored in its original unopened containers.

# FS701

## TECHNICAL INFORMATION

Property	Test Method	Result
Composition		An intumescent acrylic mastic
<b>Fire Performance</b>		
Period of Fire Resistance	BS EN 1366-3	up to 4 hours
Acoustic Rating	BS EN ISO 10140:2-2010	up to 61 dB
Air Permeability	BS EN ISO 1023:2	Air tight up to 600 Pa
Depth of Sealant Required	Gap width up to 50 mm	50% of width (2:1 ratio)
<b>Properties (Typical Values)</b>		
Solids Content		82% to 85%
pH Value		8.8 to 10.0
Flash Point		n/a
Specific Gravity		1.5 to 1.6
Viscosity		Thixotropic
Tensile Strength		170 kN/m <sup>2</sup> (0.17 MPa)
Touch Dry	at 20°C	30 minutes
Cure Through Time	at 20°C - 20 mm depth	20 days

## PERFORMANCE

Minimum 120 mm Thick Flexible or Rigid Wall. Sealant to Both Sides of the Wall.			
Penetrations Specification	Depth (mm)	Backing material	Classification
Copper/Steel Pipe 15 mm Ø, 0.8 mm - 7.4 wall thickness	10 mm annulus x 25 mm deep	N/A	E120 C/U E120 C/U
Copper/Steel Pipe 40 mm Ø, 0.8 mm - 14.2 mm wall thickness	10 mm annulus x 25 mm deep	N/A	E120 C/U E115 C/U
Copper/Steel Pipe 40-159 mm Ø, 1.8 mm - 14.2 mm wall thickness	10 mm annulus x 25 mm deep	N/A	E120 C/U
Copper/Steel Pipe 40 mm Ø, 0.8 mm - 14.2 mm wall thickness*	10 mm annulus x 25 mm deep	N/A	E120 C/U E190 C/U
Copper/Steel Pipe 40-159 mm Ø, 1.8 mm - 14.2 mm wall thickness	10 mm annulus x 25 mm deep	N/A	E120 C/U E120 C/U

Minimum 150 mm Thick Rigid Wall, Horizontally orientated to one side of the floor. Sealant to both sides of the wall			
Penetrations Specification	Installed Both Faces	Backing material	Classification
Cables up to 21 mm	490 mm long x 100 mm high x 25 mm deep	70 mm thick, 80 kg/m <sup>2</sup>	E120 W190
Perforated Cable Tray 450 mm x 50 mm			
Cables upto 21-50 mm	200 mm long x 100 mm high x 25 mm deep	N/A	E90 E160

Linear Joint Seals. Minimum 120 mm Thick Flexible or Rigid Wall. Sealant Flush to Both Faces of the Wall		
Depth (mm)	Backing material	Classification
12.5 mm (both side)	PE backing rod	E1120-V-X-F-W 00 to 20

<b>Linear Joint Seals Minimum 120 mm Thick - Sealing of Drywall Head Track - Sealant Flush To Both Faces of the Wall. Horizontally Orientated Sealant to Both Sides of the Wall</b>		
<b>Substrate</b>	<b>Depth (mm)</b>	<b>Classification</b>
Gypsum board / Steel head track	25 mm (both side)	E1120-T-X-F-W 00 to 20
Gypsum board / Steel head track	25 mm (both side)	E1120-V-X-F-W 00 to 50

<b>Linear Joint Seals. Minimum 100 mm Thick Rigid Wall, Vertically Orientated Sealant to One Side of the Wall</b>			
<b>Substrate</b>	<b>Depth (mm)</b>	<b>Backing Material</b>	<b>Classification</b>
Concrete - Concrete	10 (single side)	PE Backing Rod	E120 EI45-V-X-F-W 00 to 20
Concrete - Concrete	25 (single side)	PE Backing Rod	E120 EI60-V-X-F-W 00 to 50
Concrete - Steel	10 (single side)	PE Backing Rod	E120 EI20-V-X-F-W 00 to 20
Concrete - Steel	50 (single side)	PE Backing Rod	E45 EI30-V-X-F-W 00 to 50
Concrete - Softwood	10 (single side)	PE Backing Rod	E30 EI20-V-X-F-W 00 to 20
Concrete - Softwood	50 (single side)	PE Backing Rod	EI45-V-X-F-W 00 to 50

<b>Linear Joint Seals. Minimum 150 mm Thick Rigid Floor, Horizontally Orientated Sealant to One Side of the Floor</b>			
<b>Substrate</b>	<b>Depth (mm)</b>	<b>Backing Material</b>	<b>Classification</b>
Concrete - Concrete	10 (single side)	PE Backing Rod	E240 EI45-H-X-F-W 00 to 20
Concrete - Concrete	25 (single side)	PE Backing Rod	E240 EI90-H-X-F-W 00 to 50
Concrete - Steel	10 (single side)	PE Backing Rod	E120 EI20-H-X-F-W 00 to 20
Concrete - Steel	50 (single side)	PE Backing Rod	E240 EI90-H-X-F-W 00 to 50
Concrete - Softwood	10 (single side)	PE Backing Rod	EI30-H-X-F-W 00 to 20
Concrete - Softwood	50 (single side)	PE Backing Rod	EI45-H-X-F-W 00 to 50

## Backing Material

This section relates to the change of material used to back a seal or sealant as part of a sealing system for apertures for penetrations of multiple services and linear joint seals

<b>Backing Material</b>	<b>Effect</b>	<b>Comment</b>
No Backing Material	= or +	May be replaced by PE rods, mineral wool or any of the below
Polyethylene / Polyurethane Rod	= or +	May be replaced by mineral wool
Glass Wool	= or +	May be replaced by stone wool or ceramic wool
Stone Wool	= or +	May be replaced by ceramic wool
Ceramic Wool (including ceramic alternatives)	=	May only be replaced by alternative material of equivalent material properties, i.e. density, thermal conductivity, melting point, shrinking, reaction to fire classification - for example alkaline earth silicate fibres
Increase in backing material depth	+	Acceptable for class A1 and A2 materials.
Decrease in backing material depth	-	Not acceptable.

# FS701

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## Health & Safety Precautions

Product Health and Safety Data Sheets must be read and understood before use.

## Technical Service

Nullifire has a team of experienced Technical Sales Representatives who provide assistance in the selection and specification of products. For more detailed information, service and advice, please call Customer Services on 01942 251400.

## Guarantee / Warranty

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

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

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