

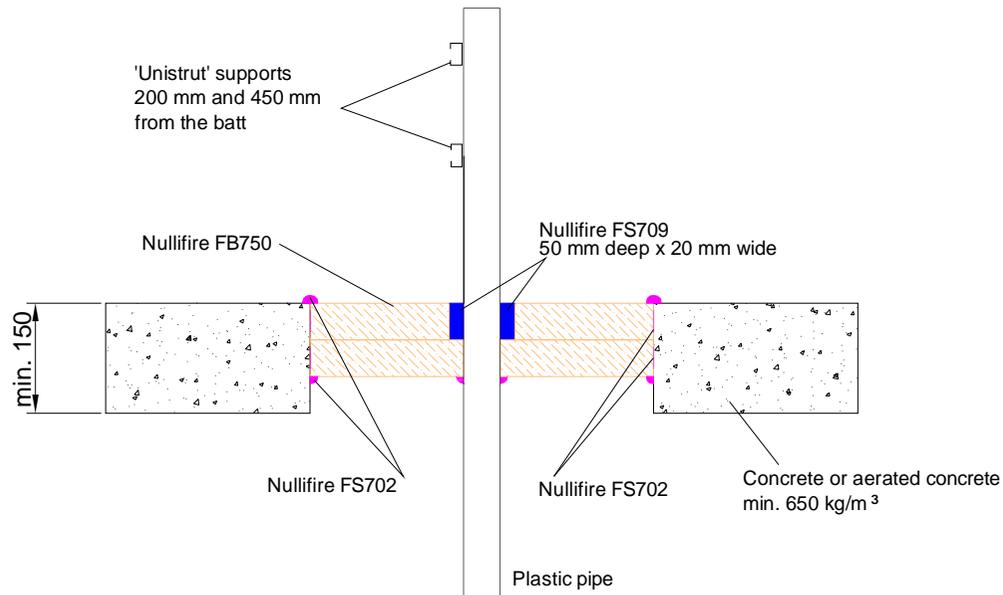
Nullifire Technical Drawings

FS709 Intumescent Sealant Pipe Penetrations Through Floors

Table of Contents

- ▶ PVC and PE pipe penetration seal with FB750 flush to the top face and FS709 with combustible pipes (FS709-PL1a)
- ▶ ABS and PP pipe penetration seal with FB750 flush to the top face and FS709 with combustible pipes (FS709-PL1b)
- ▶ Temporary penetration seal with unopened tube (FS709-PL2)
- ▶ Metal pipes penetrating through a rigid floor construction (FS709-PL3)
- ▶ Plastic pipes penetrating through a rigid floor construction (FS709-PL4)
- ▶ Copper or steel pipes penetrating through a rigid floor construction (FS709-PL5)

**Nullifire
FS709-PL1a**



APPROVAL:

ETA 17/0388

Tested pipe types and max. Ø of the pipes
Look at the table in this detail

FS709-PL1a
Fire class; Look at the table in this detail

Additional information ETA-approval/ Annex A.

Technical installation instructions need to be followed installing the products.

The max. seal size of 1100 x 1100 mm

The max. cross section of services 60 %.

Minimum permitted separation between pipes of 145 mm and 110 mm to the edges of the seal

U/C = (Uncapped/Capped)

Services	Fire class	Seal construction
PVC pipe# up to Ø40mm/1.9mm wall	E160 U/C	20mm wide x 50mm deep Nullifire FS709 installed from the top face
PVC pipe# up to Ø90mm/5.4mm wall		
PVC pipe# up to Ø125mm/4.8-7.4mm wall		
PE pipe\$ up to Ø40mm/3.7mm wall		
PE pipe\$ up to Ø90mm/8.2mm wall		
PE pipe\$ up to Ø110mm/3.4-6.6mm wall		

EN1452-2

\$ EN12201 DIN 8074/8075

THE CONTENTS OF THE DRAWING

PVC and PE pipe penetration seal with FB750 flush to the top face and FS709 with combustible pipes

DESIGNER

REV

Nullifire has provided this specification on the basis of the data and information given to Nullifire by the customer, the Nullifire product information and level of technical knowledge this specification relates to is expected to provide the level of fire performance, should the proposed detail be subjected to the standardised fire resistance performance against which the judgment has been made.

The accuracy of this specification relies on the following:

1. Only Nullifire products as defined in the specification are used.
2. The specific products are installed by a competent person, utilising Nullifire installation manual and data sheets noting limitations.
3. The proposed specification has been checked by the user.
4. For Details on CE Marked Products Refer to the CE Technical Data Sheets.

SEAL OF APPROVAL MUST BE VERIFIED IF THIS DOCUMENT HAS BEEN MODIFIED

DATE

27.9.2018

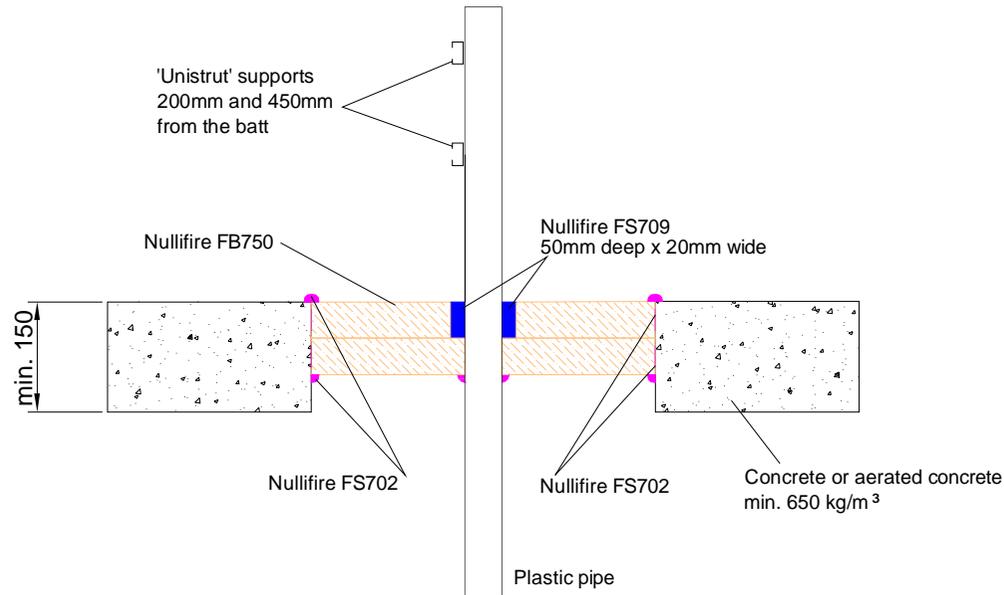
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DETAIL MARK

FS709-PL1a

**Nullifire
FS709-PL1b**



APPROVAL:

ETA 17/0388

Tested pipe types and max. Ø of the pipes
Look at the table in this detail

FS709-PL1b
Fire class; Look at the table in this detail

Additional information ETA-approval/ Annex A.

Technical installation instructions need to be followed installing the products.

The max. seal size of 1100 x 1100 mm

The max. cross section of services 60 %.

Minimum permitted separation between pipes of 145 mm and 110 mm to the edges of the seal

U/C = (Uncapped/Capped)

Services	Fire class	Seal construction
ABS* pipe Ø40mm/2.7mm wall	EI60 U/C	20mm wide x 50mm deep Nullifire FS709 installed from the top face
ABS* pipe Ø90mm/6.0-11.2mm wall		
ABS* pipe Ø114mm/7.3-11.2mm wall		
PP pipe @ up to Ø40mm/1.8mm wall		
PP pipe @ up to Ø90mm/8.2mm wall		
PP pipe @ up to Ø110mm/10mm wall	EI20 U/C	
PP pipe @ Ø110mm/2.7mm wall		

* BS 5391-1:2006

@ ISO 15494 DIN 8077/8078

THE CONTENTS OF THE DRAWING

ABS and PP pipe penetration seal with FB750 flush to the top face and FS709 with combustible pipes

DESIGNER

REV

DATE

27.9.2018

SCALE

Not scaled

DETAIL MARK

FS709-PL1b

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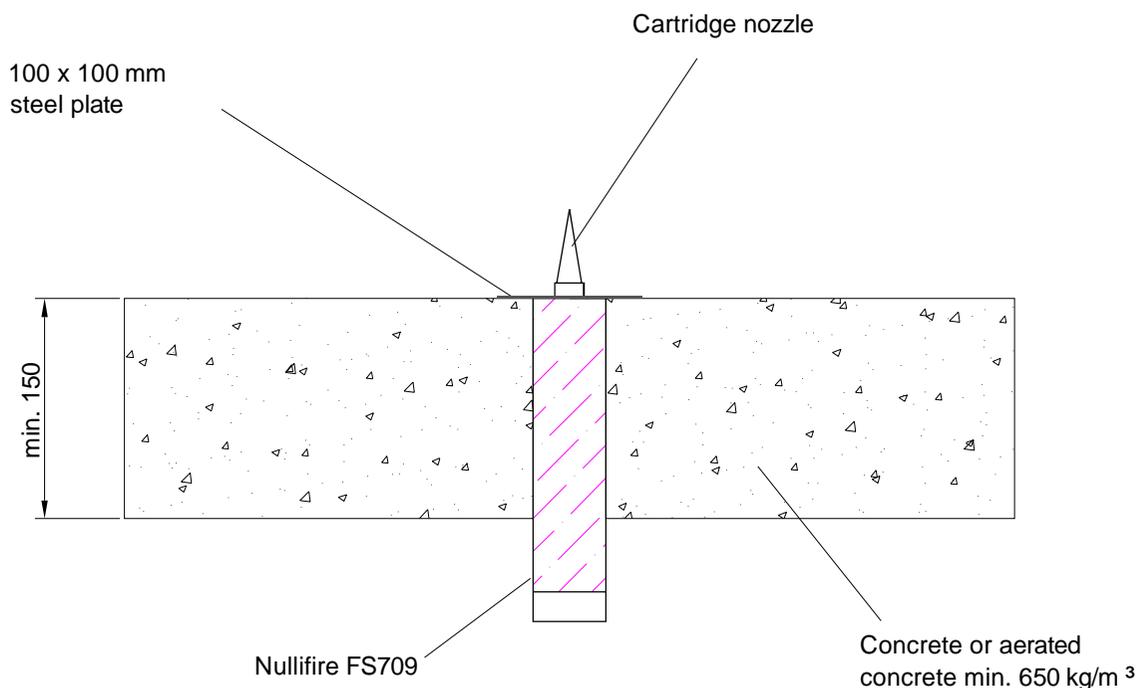
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**Nullifire
FS709-PL2**



APPROVAL:

ETA 17/0388

Tested cartridge size and max. Ø

Look at the table in this detail

FS709-PL2

Fire class; Look at the table in this detail

Additional information ETA-approval/ Annex A.

Technical installation instructions need to be followed installing the products.

The max. seal size of 50 mm

The max. cross section of services 60 %.

Cartridge size	Fire class	Additional seal component
215mm long x Ø40mm	E120	Mastic cartridge held in position in aperture by steel plate with a Ø12mm hole in the centre, clamped between the cartridge and nozzle

THE CONTENTS OF THE DRAWING

Temporary penetration seal with unopened tube

DESIGNER

REV

DATE

27.9.2018

SCALE

Not scaled

DETAIL MARK

FS709-PL2

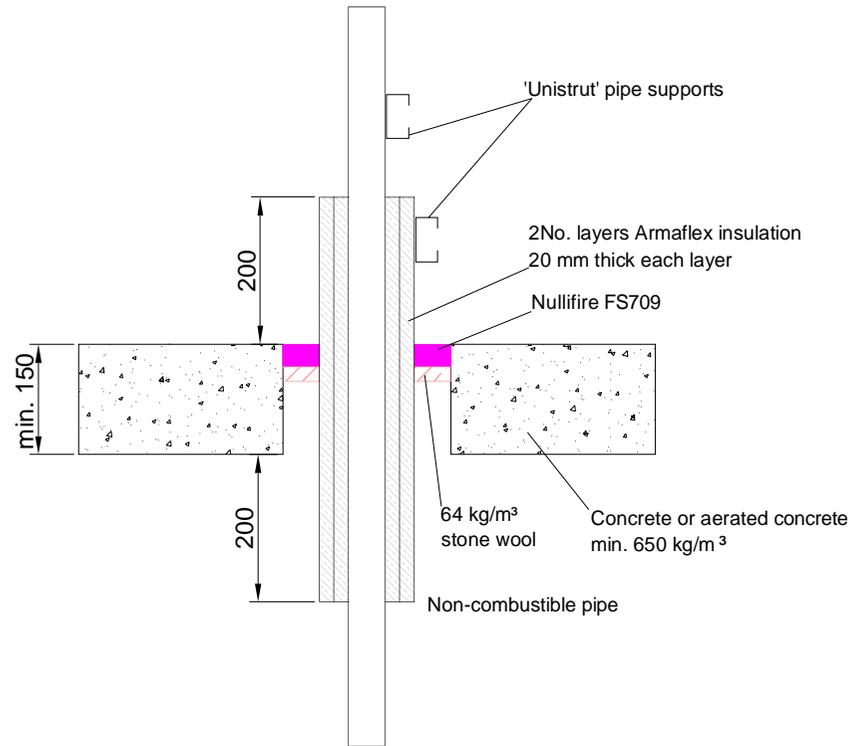
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Nullifire

**Nullifire
FS709-PL3**



APPROVAL:

ETA 17/0388

Tested pipe types and max. Ø of the pipes
Look at the table in this detail

FS709-PL3

Fire class; Look at the table in this detail

Additional information ETA-approval/ Annex A.

Technical installation instructions need to be followed installing the products.

The max. cross section of services 60 %.

Services	Fire class	Opening size	Seal structure
Ø89mm / 5mm wall steel pipe insulated with 2No. layers Armaflex insulation 450mm long x 20mm thick (each layer), Local sustained	E160 U/C	Ø160mm	30 mm depth Nullifire FS709 flush to the top face, backed by 25 mm stone wool insulation min 64kg/m ³

THE CONTENTS OF THE DRAWING

Metal pipes penetrating through a rigid floor construction

DESIGNER

REV

DATE

27.9.2018

SCALE

Not scaled

DETAIL MARK

FS709-PL3

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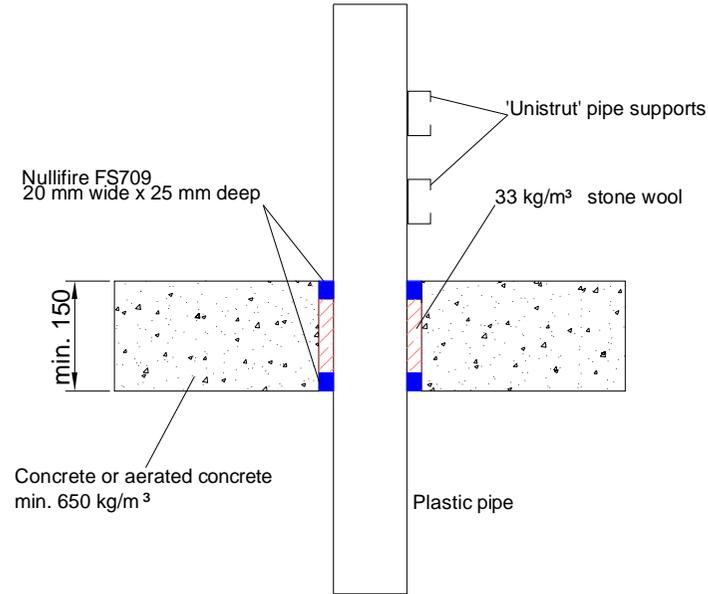
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Nullifire

**Nullifire
FS709-PL4**



APPROVAL:

ETA 17/0388

Tested pipe types and max. Ø of the pipes
Look at the table in this detail

FS709-PL4
Fire class; Look at the table in this detail

Additional information ETA-approval/ Annex A.

Technical installation instructions need to be followed installing the products.

Min. 20 mm to edge of seal and between services

The max. cross section of services 60 %.

The min. permitted separation between adjacent services 30 mm

EN1452-2
\$ EN12201 DIN 8074/8075
@ ISO 15494 DIN 8077/8078

U/C = (Uncapped/Capped)

Services	Opening size	Fire class	Seal construction
Up to Ø40mm/1.9mm wall PP pipe	Ø80mm	E1240 U/C	20 mm wide by 25 mm depth Nullifire FS709 flush to both faces, backed by 100 mm stone wool insulation min. 33kg/m ³
Up to Ø40mm/1.9mm wall uPVC pipe#	Ø80mm	E1120 U/C	
Up to Ø40mm/3.7mm wall PE pipe\$	Ø80mm	E1120 U/C	
Up to Ø110mm/3.2m wall uPVC# pipe#	Ø150mm	E1120 U/C	
Up to Ø110mm/3.4mm wall PP pipe@	Ø150mm	E160 U/C	
Up to Ø110mm/3.9mm wall PP pipe\$	Ø150mm	E1180 U/C	
Up to Ø110mm/2.7-10.0mm wall PP pipe@	Ø150mm	E160 U/C	
Up to Ø110mm/10.0mm wall PP pipe@	Ø150mm	E1120 U/C	
Up to Ø125mm/7.4-11.4mm wall PE pipe\$	Ø165mm	E160 U/C	

THE CONTENTS OF THE DRAWING
Plastic pipes penetrating through a rigid floor construction

DESIGNER

REV

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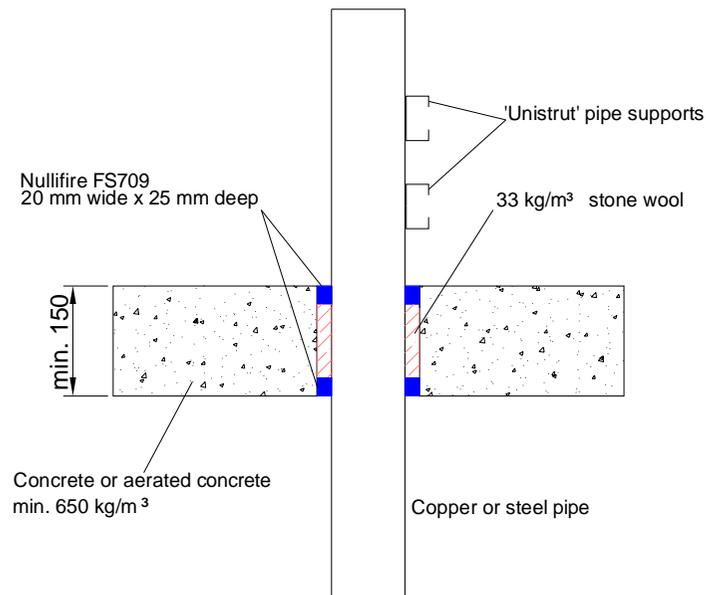
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Not scaled

DETAIL MARK
FS709-PL4

Nullifire

**Nullifire
FS709-PL5**



APPROVAL:

ETA 17/0388

Tested pipe types and max. Ø of the pipes
Look at the table in this detail

FS709-PL5
Fire class; Look at the table in this detail

Additional information ETA-approval/ Annex A.

Technical installation instructions need to be followed installing the products.

Min. 20 mm to edge of seal and between services

The max. cross section of services 60 %.

The min. permitted separation between adjacent services 30 mm

U/C = (Uncapped/Capped)

Services	Fire class	Opening size	Seal construction
Copper or steel pipe Ø15mm/0.7–14.2mm wall insulated with 30mm glass fibre 80kg/m ³ , Continuous sustained	EI20 C/U	Ø115mm	25mm depth Nullifire FS709 upper face, with 100mm of 33kg/m ³ rock mineral fibre
Copper or steel pipe Ø159mm/2-14.2mm wall insulated with 25mm glass fibre 80kg/m ³ , Continuous sustained	EI60 C/U	Ø250mm	

THE CONTENTS OF THE DRAWING

Copper or steel pipes penetrating through a rigid floor construction

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27.9.2018

SCALE

Not scaled

DETAIL MARK

FS709-PL5

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